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James Lennox

ANNEX

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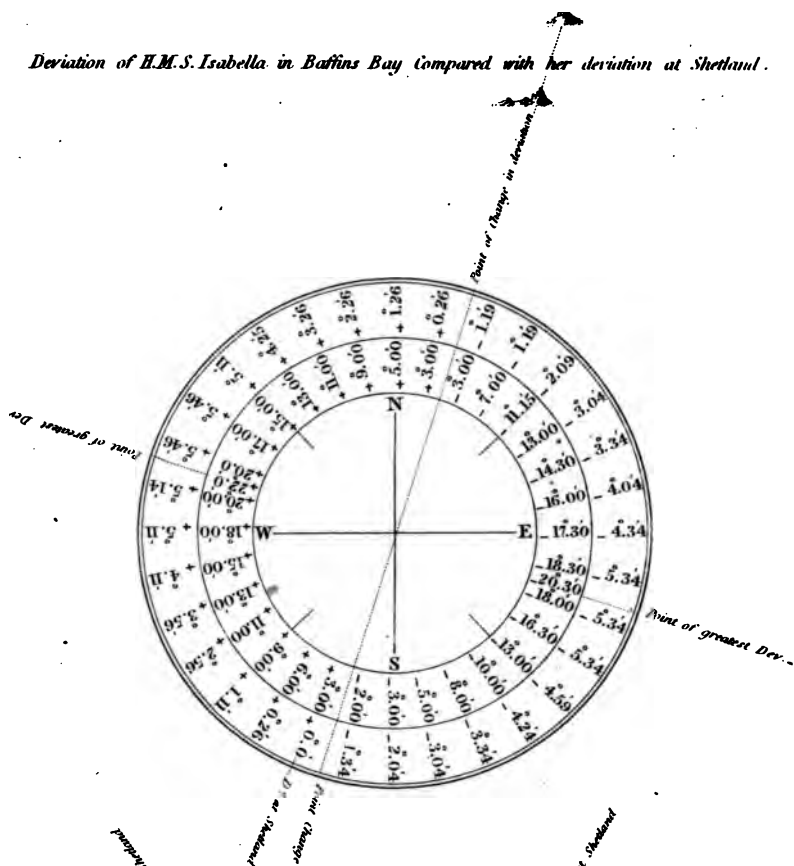
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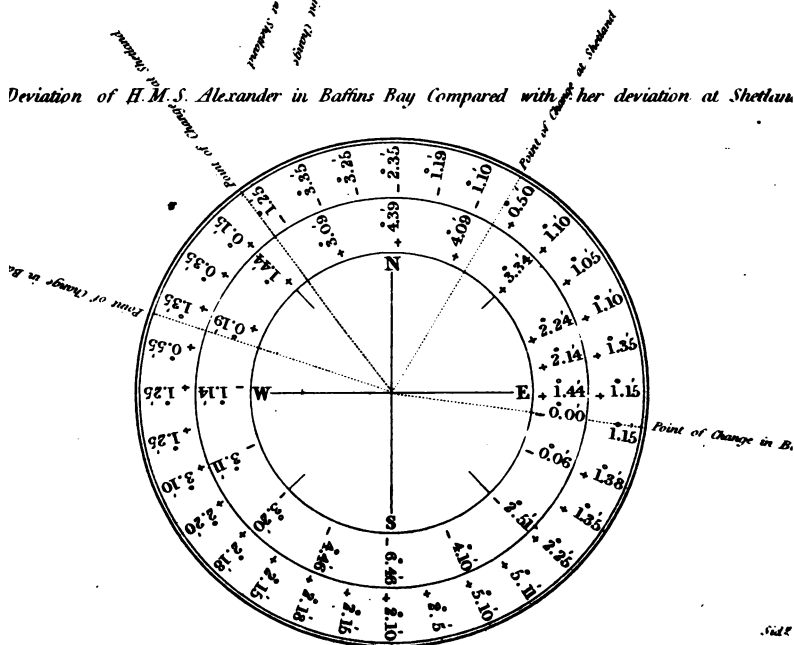
KBR



Deviation of H.M.S. Isabella in Baffins Bay Compared with her deviation at Shetland.



Deviation of H.M.S. Alexander in Baffins Bay Compared with her deviation at Shetland.



1. The Deviation in Baffins Bay will be found between the inner and middle Circles and the Deviation at Shetland between the outer and middle Circles of the Diagrams.

A
VOYAGE OF DISCOVERY,

MADE UNDER THE ORDERS OF THE ADMIRALTY,

IN

HIS MAJESTY'S SHIPS
ISABELLA AND ALEXANDER,

FOR THE PURPOSE OF

EXPLORING BAFFIN'S BAY,

AND ENDEAVOURING INTO THE FEASIBILITY

OF A

North-West Passage.

BY **JOHN ROSS, K. S. CAPTAIN ROYAL NAVY.**

SECOND EDITION.

IN TWO VOLUMES.

VOL. I.

LONDON:

Printed by Curran and Speerwoods, Printers-General,
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1819,

NEW YORK
HALL
1820



ROY W. B.
JAN
1961

TO
THE RIGHT HONOURABLE
VISCOUNT MELVILLE,
BARON DUNEIRA,
FIRST LORD OF THE ADMIRALTY, &c. &c. &c.

THIS WORK,
WITH HIS LORDSHIP'S PERMISSION,

IS

MOST RESPECTFULLY DEDICATED

BY HIS LORDSHIP'S

MOST OBEDIENT

AND VERY HUMBLE SERVANT,

JOHN ROSS.

NEW YORK
PUBLIC
LIBRARY

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INTRODUCTION.

THE following narrative of the Voyage of Discovery made under my command, and pursuant to the orders of the Admiralty, can require little in the nature of an introduction. The causes in which it originated are as well known to the Public as they are to myself; and the discussions of different kinds to which it has given rise, are, probably, much more familiar to every one who may do me the honour to read this journal, than they are to the writer of it.

Few voyages of this nature have excited more general interest at their outset than the present. It would not be easy for me to add any thing to the innumerable articles on this subject that have appeared in the

several public journals which are in the hands of all classes of readers. My habits in literary composition are such, that I could not hope to put all these circumstances in a clearer point of view ; and, as far as they partake of a controversial nature, it is not my business to enter into the discussion.

My nautical education has taught me to act, and not to question ; to obey orders as far as possible, not to discuss probabilities, or examine philosophical or unphilosophical speculations.

If it were possible to condense, within such a space as these pages would admit, the various information formerly collected respecting the Polar Seas and the objects of this voyage, I know not that my time, or my limited experience in writing, would permit it. That attempt is, at any rate, rendered unnecessary, by the works on this subject which have long been in the hands of every one, and are, doubtless, well known to all my readers. I allude to the writings of Barrington, Colonel Beaufoy,

and the more recent sketch of the Northern Voyages, published by my friend Mr. Barrow.

I have here attempted nothing beyond the journal of a seaman, as it was neither in my power to give much elegance to the composition, nor to include much entertainment in the matter of a narrative, which was not productive of much adventure. From the nature of the service we were almost always at sea, and were thus cut off from those sources of variety which are only to be found by frequent communication with unknown or interesting shores. If this voyage should be deficient in general interest, I trust, however, that the statements which it contains will still be useful, and that their accuracy will render them acceptable to geographers. I also trust, as I believe myself, that the objects of the voyage have been in every important point accomplished; that I have proved the existence of a bay, from Disco to Cumberland Strait, and set at rest for ever the question of a north-west passage in this direction. It is nevertheless gratifying to me to reflect that, in the interval between the former and

the present edition, a second expedition has been fitted out to pursue the discoveries which were the produce of the first. Should the results of that expedition confirm those here described, I shall have the pleasure of knowing that the liberality of the government and the energy of the officers and crews under my command have not been wasted: should it, on the contrary, prove that a passage exists where I have supposed the land to be continuous, I shall unite with others in rejoicing at this extension of our geographical knowledge, without feeling any disappointment that there has been reserved for others that success which no one can command, but for which our best exertions were made.

In re-discovering Baffin's Bay, I have derived great additional pleasure, from the reflection that I have placed in a fair light before the Public the merits of a worthy and able navigator, whose fate, like that of many others, it has not only been to have lost, by a combination of untoward circumstances, the opportunity of acquiring during his life-time the fame he deserved ;

but, could he have lived to this period, to have seen his discoveries expunged from the records of geography, and the bay, with which his name is so fairly associated, treated as a phantom of the imagination.

The circumstances which immediately preceded this voyage may be stated in a few words, and I have subjoined to them all those matters relating to the preparations and equipment, which are either useful or interesting. A copy of the instructions will be found in the Appendix.

On the 11th of December, 1817; I received a letter, dated the 4th, from Sir George Hope, one of the Lords of the Admiralty, informing me that two ships were to be sent out, to “ascertain the existence or non-existence of a north-west passage;” and desiring me to let him know, by return of post, whether my health was equal to the arduous service which must be expected on such a voyage, and whether I should wish to undertake it; at the same time informing me, that I should be accompanied by a man of science, and by Greenland pilots accustomed to navigate those

seas. To this I returned for answer, that I had no hesitation in undertaking the service, particularly with the promised assistance.

On the 16th I received orders from Sir George, to make the best of my way from Loch Ryan to Greenock, in the *Driver* (which ship I commanded), and when superseded to proceed to London ; I was also informed that, in the mean time, they would be getting on with the ships, which had been already selected.

Having arrived in London on the 30th of December, and received directions, I visited the ships, and chose the *Isabella*, as being the most proper ship for the senior officer; I was afterwards employed in planning the accommodations, and directing the various alterations which were necessary for the safety of the ships and comfort of the crews, as well as in obtaining information from the different masters of the Greenland ships, and other persons who had been accustomed to navigate the icy seas.

On the 15th of January, 1818, the four ships were commissioned, *viz.* the *Isabella*, of three hundred and eighty-five tons, and

the *Alexander*, of two hundred and fifty-two tons, for the north-west ; and the *Dorothea*, of three hundred and eighty-two tons, and the *Trent*, of two hundred and forty-nine tons, for the polar expeditions ; and the following officers subsequently received their appointments.

ISABELLA.

- No. 1. John Ross, Captain, Senior Officer,
and Commander of the Expedition.
2. William Robertson, (*b*) Lieutenant.
3. William Thom, Purser.
4. John Edwards, Surgeon.
5. C. J. Beverley, Assistant Surgeon.
6. A. M. Skene, Admiralty Midshipman.
7. J. C. Ross, ditto, ditto.
8. John Bushnan, Midshipman and Clerk.
9. Benjamin Lewis, Master and Greenland Pilot.
10. Thomas Wilcox, Mate, ditto, ditto.

ALEXANDER.

- No. 1. W. E. Parry, Lieutenant and Commander.
2. H. H. Hoppner, Lieutenant.
3. Ph. Bisson, Admiralty Midshipman.
4. John Nius, ditto, ditto.
5. Alex. Fisher, Assistant Surgeon.
6. W. H. Hooper, Purser.
7. John Allison, Master and Greenland Pilot.
8. Joseph Philips, Mate, ditto, ditto.
9. James Halse, Clerk.

During the time the ships were in dock, they were frequently visited by the Comptroller and Commissioners of the Navy ; every suggestion which was offered for the improvement of the plans were attended to, and no pains were spared by the officers of the yards, and men employed in their different departments. Mr. Lang, Assistant Surveyor, under whose particular direction the *Isabella*, *Dorothea*, and *Trent*, were re-

paired and fortified in the merchants' yards, and who made some important improvements, has furnished me with the following plan of the *Isabella's* construction, with the alterations and additions, to strengthen the ship against the pressure of the ice.

A Description of the Manner in which his Majesty's Ship Isabella was fitted, for a Voyage of Discovery to the Arctic Seas.

EXTERNALLY.

One strake of plank was taken out from the bottom, all fore and aft, at the heads and heels of the timbers composing her frame, to ascertain the condition of the ship ; in lieu of which a strake of oak seven inches thick was introduced, with a rabbet on each edge, to make good the substance, and receive the doubling of the bottom, which was of oak, three inches thick ; the original bottom was then well examined, caulked, and payed with the common mixture of pitch and tar ; after which a coat

of felt (a composition of animal hair and tar, in its properties both elastic and adhesive) was laid all over the whole surface, on which the doubling oak plank was brought, and secured through the original plank timbers, and inside lining of the ship, with bolts well clenched: this doubling extended up the counter abaft, as well as to the after part of the stern-post, in which a fresh rabbet was formed, abaft the original one, within about four inches of the back, to receive the ends, or butts, of the said doubling. The bows were still more strongly and substantially fortified prior to the doubling being brought on; pieces of timber were worked vertically next the stem, in the angle formed by that and the bow, to sharpen the form of the vessel; underneath these pieces a coat of felt was first laid, the pieces well caulked, and another coat of felt then laid thereon, to receive the doubling, which was worked from twelve to thirteen inches thick, at the fore ends, to fashion out and make a fair line with the front or fore part of the stem; the after ends were diminished to the thickness of the doubling

of the bottom. On the fore ends of these thick strakes, after they had been caulked, iron plates, of about three quarters of an inch thick, were secured round their ends over the stem, to protect them from being injured by the ice; these plates were continued in close connection all the way down the bow as low as the fore foot, or gripe, and the whole doubling well caulked and payed, similar to the mode practised with the original bottom.

The keel of the vessel was secured in the following manner: the original garboard strakes were taken off the bottom, and a thick strake of elm placed on each side of the keel in lieu, with a coat of felt underneath, and bolted athwartships through the said keel, and likewise up and down through the floor timbers, and the bolts well clenched within-board; in the outer edges of the said strakes, rabbets were formed to receive the doubling of the bottom, from which place the doubling extended up to within about three feet of the gunwale, terminating there in a thick strake of oak, rabbeted in like manner, and let

home to the timbers of the topside, bolted through, and well clenched : the whole of the chains were secured, and guarded by thick pieces of timber, payed and bolted under the channel, covering the links, and thus protecting them from injury, or being carried away by the ice.

INTERNALLY.

Large shelf-pieces were introduced all fore and aft under the beam-ends at the side, and dowelled or coaked up to the under side of the beams, and bolted in and out through the ship's side, as well as in an up-and-down direction through the said beams and well clenched ; pieces of a similar kind were introduced at various other parts of the ship on the ceiling, and dowelled thereto opposite the other thick strakes on the outside of the bottom as before mentioned, which made good the thickness of the doubling on the bottom ; and these strakes were well bolted through the ship's side to each other, and clenched within-

board, thereby connecting the fabric, and supporting the ship against the strain likely to occur by her being struck at the extremities by the ice: these pieces were continued from the bow to the stern, and united by breast-hooks and crutches to strengthen those parts of the ship also: a tier of large beams was introduced about five feet below the lower deck to support the ship's sides against pressure, provided the ship should be squeezed in the event of her being caught between two fields or floes of ice. The ceiling was taken off the bow as far aft as the fore-step below, and several feet further aft at the lower-deck beam in a diagonal direction; the openings between the timbers and in wake thereof were then filled in solid, caulked and payed, on which surface were laid sixteen large breast-hooks, (in lieu of the plank taken off,) their sides well fayed close to each other from the deck down to the fore-step all across the bows, well bolted through the outside stuff, and clenched within-board; the ends of these hooks were likewise confined by the fore-

part of the lower-deck shelf-piece, which finished with a large hook over the others, and the same confining the fore-ends of all the fore and aft thick strakes that were dowelled to the ceiling, as before mentioned ; against this large breast-hook, shores were placed and bolted under the beams, with carlings between the said beams, their under sides dowelled to the upper sides of the shores and bolted through, and clenched securely to each other. The shores were placed in a direction as square as possible from the curve of the bow, as may be perceived by the sketch of the half-breadth plan of the lower-deck : shores were placed under the fore platform beams in like manner, and the whole most substantially secured. Hooks and ekeings were placed in the bows above the lower-deck hook. Various other works were performed, too many to enumerate, or fully explain ; the fitting the bed-places of the officers and crew, in such a manner that they might be taken on shore with ease, and formed into a dwelling in case of shipwreck ; the galley, and other fire-places, stoves, &c. for airing

the ship, with every convenience requisite for the voyage; mode of stowing the boats, davits, skids, and a roof, or covering of tilt over the ship's deck in case of her being frozen fast in the ice, and obliged to remain a winter in that situation; spare rudder complete, stowed on board by the main-mast, and apparatus complete for Captain Pakenham's rudder, in the event of both rudders being lost; spare capstan fitted abreast the starboard side of fore hatchway, to heave the ship a-head when in contact with the ice; &c. &c. &c.

The Alexander, Dorothea, and Trent, were similarly fitted.

On the 22d of February the ships came out of dock, were moored alongside the receiving ships at Deptford, where they embarked the necessaries, provisions, and stores, which had been in preparation for the voyage; a list of which, for the whole four ships, is subjoined; and it will be seen that nothing was neglected which could be conducive to the health and comfort of

those who volunteered to serve on this enterprise.

The following Establishment of officers and men for the four vessels, while employed on a voyage of discovery in the Arctic Regions, with the pay, per month, allowed to the officers and men, was finally settled.

ISABELLA.

			£.	s.	d.
1 Captain	-	-	46	0	0
1 Lieutenant	-	-	18	8	0
1 Purser	-	-	7	13	4
1 Surgeon	-	-	39	4	0
1 Assistant Surgeon	-	-	18	4	0
2 Midshipmen (each)		-	6	2	8
1 Clerk	-	-	6	18	0
1 Master (merchant)		-	5	0	0
1 Mate (merchant)		-	4	0	0
1 Carpenter	-	-	6	0	0
1 Sailmaker	-	-	4	0	0
1 Cook	-	-	4	0	0

13 carried forward.

INTRODUCTION.

xxi

13 Brought forward.		£.	s.	d.
4 Leading Men (each)	-	3	15	0
31 Able Seamen (each)	-	3	0	0
1 Serjeant of Marines (colour)		5	4	2
1 Private ditto, 2d Class	-	1	18	4
4 Privates ditto, 3d Class	-	1	14	10

54 whole complement, per Admiralty order, 3d April, 1818.

SUPERNUMERARIES.

1 Captain Royal Artillery £500, per Admiralty order, besides his army pay.				
1 Serjeant ditto	-	-	5	4 2
1 Eskimaux	-	-	3	0 0

57 total number on board.

ALEXANDER.

1 Lieutenant and Commander		23	0	0
1 Lieutenant	-	-	18	8 0
1 Purser	-	-	7	13 4
1 Assistant Surgeon	-	-	18	4 0

4 carried forward.

		£.	s.	d.
4 Brought forward.				
2 Midshipmen (each)	-	6	2	8
1 Clerk	-	6	18	0
1 Master (merchant)	-	5	0	0
1 Mate (merchant)	-	4	0	0
1 Carpenter	-	6	0	0
1 Cook	-	4	0	0
1 Sailmaker	-	4	0	0
3 Leading Men (each)	-	3	15	0
17 Able Seamen (each)	-	3	0	0
1 Corporal Marines	-	2	10	10
4 Privates	-	1	14	10

37 whole complement, per Admiralty order,
dated 3d April, 1818.

The officers were paid six and the seamen three months' pay (besides river pay) in advance.

The following books were supplied for the use of the officers, and quarter-deck petty officers, of His Majesty's ship *Isabella*:

- 1 Mackenzie's Travels in America, 4to.
- 2 Hearne's ditto, ditto, 4to.
- 3 Phipp's Voyage to the North Pole, 4to.

- 4 Ellis's ditto to Hudson's Bay, 8vo.
- 5 Vancouver's Voyage, 3 vols. 4to., and
Atlas, folio.
- 6 Wallis, Carteret, and Cook's Voyages,
8 vols. 4to., with Atlas, folio.
- 7 Dampier's Voyages, 4 vols. 8vo.
- 8 Portlock's ditto, 4to.
- 9 Dixon's ditto, 4to.
- 10 Meare's ditto, 4to.
- 11 Coxe's Russian Discoveries, 8vo.
- 12 Barrington's Miscellanies, 4to.
- 13 Forster's Northern Discoveries, 2 vols.
4to.
- 14 Astronomical Observations of Wales
and Bayley, 1772 to 1775, 4to.
- 15 Ditto of Cook, King, and Bayley, 1776
to 1780, 4to.
- 16 Ditto Byron, Wallis, Carteret, and Cook,
from 1764 to 1771, 4to.
- 17 Brongniart's Mineralogy, 2 vols. 8vo.
- 18 Bakewell's Geology, 8vo.
- 19 Turton's Linnæus, 7 vols. 8vo.
- 20 Mackenzie's Iceland, 4to.
- 21 Falconer's Patagonia, 4to.
- 22 Cartwright's Labrador, 3 vols. 4to.
- 23 Turnbull's Voyage, 4to.

- 24 Crantz's History of Greenland, 2 vols.
8vo.
- 25 Burney's Collection of Voyages, 5 vols.
4to.

Thirty Bibles and sixty Testaments were also supplied by the Naval and Military Bible Society, for the four ships, and distributed accordingly.

A LIST OF INSTRUMENTS

For the Northern Expeditions.

ISABELLA.

Seven chronometers, three the property of Government, and four of * individuals. A clock, the pendulum of which, cast in one solid mass, vibrates on a blunt knife-edge, resting in longitudinal sections of hollow cylinders of agate.

A transit, by Jones.

A variation transit, by Dollond.

* The Alexander had also three Government chronometers.

A dipping-needle, the property of Henry Browne, Esq., made by Nairne.

A Dipping-needle, by Jones.

Ditto, by Troughton.

Ditto, by Lockwood.

A repeating circle, by Jones.

Altitude instrument, invented by Captain H. Kater, by Jones.

Hygrometer, ditto, ditto.

Hydrometer, by Jones.

Cyanometer, by ditto.

Ten thermometers, ditto } Fahren-

One self-registering ditto, ditto } heit.

One barometer, with attached thermometer, by ditto.

One dip micrometer, invented by Dr. Wollaston, by ditto.

One dip-sector, ditto, ditto, by ditto.

One macrometer, ditto, ditto, ditto.

Electrical apparatus, invented by Sir H. Davy.

Apparatus for taking up sea-water from given depths above 8 fathoms.

One common mountain barometer and companion.

Ditto, invented by Sir H. Englefield.

One sextant, by Dollond.
One theodolite, by Jones.
Two angloimeters, by ditto.
One beam-compass, by ditto.
One brass scale, by ditto.
One Gunter ditto, by ditto.
One case drawing instruments, by ditto.
One protractor.
One artificial horizon and mercury.
One sympiesometer, invented by Adie,
Edinburgh.

COMPASSES.

Two Kater's azimuth compass.
One Walker's ditto, ditto.
One insulated steering compass, by Jennings.
Four Alexander of Leith's steering compass.
One Crow's ditto.
One ditto boat ditto.
Two Burt's patent binnacle and ditto.

OTHER INSTRUMENTS.

Bain's patent log.

Massey's ditto.

Jennings' ditto and glass.

Burt's buoy and knipper.

Trengrouse's apparatus for saving lives.

Nets for small fish and invertebrate animals.

An ACCOUNT showing the several Articles of Warm Clothing supplied to each of the following vessels, in addition to the established quantities of Slop Clothing.

Ships' Names.	Flushing Jackets.	Monkey Jackets.	Red Shirts.	Flushing Trowsers Pairs.	Pairs of			Scarlet and Fawn Caps.	Milled Mitts, Pairs.	Fur Caps.	Comfortables.	Ande Shoes, Pairs.
					Swan-skin Drawers.	Wadmill Hose.	Sea Boots.					
Isabella . .	50	50	100	100	50	100	50	50	100	50	50	50
Dorothea .	50	50	100	100	50	100	50	50	100	50	50	50
Trent . .	35	35	70	70	35	70	35	35	70	35	35	35
Alexander	35	35	70	70	35	70	35	35	70	35	35	35
	170	170	340	340	170	340	170	170	340	170	170	170

One complete suit of the above warm clothing to be furnished to the seamen and marines gratis ; and the residue (if issued) to be charged, subject to the consideration of the Lords Commissioners of the Admiralty.

N. B. One complete suit was issued to each man on the 22d of September.

	<i>Isabella.</i>	<i>Dorothea.</i>	<i>Trent.</i>	<i>Alexan.</i>
Wolf-skin blanketing	- 60	60	40	40
Russian mats	- 1000	1000	800	800
Rifles complete	- 6	6	4	4
Seven barrelled guns	- 6	6	4	4
Wall-pieces	- 6	6	4	4
Ball-cartridges for the above	3600	3600	2400	2400

Coverings of Maberly's painted canvass to each ship, sufficient to cover the decks fore and aft.

Whale lines	-	- 81 No.
Whale boats	-	- 5
Ice boat	-	- 1
Ice anchors	-	- 24
Ice saws	-	- 18
Ice axes	-	- 12
Ice spurs	-	- 10 Pairs.
Ice pole hooks	-	- 2
Suits of sails, extra.	-	- 2

Canvass sufficient for one new suit of sails for Isabella, with twine and needles in proportion.

No. 1	-	-	-	956 yards.
2	-	-	-	175
4	-	-	-	669
5	-	-	-	178
6	-	-	-	330
7	-	-	-	1,220
8	-	-	-	522

Total canvass in yards - 4,052

Ice poles	-	-	-	-	10 No.
Whale lances	-	-	-	-	24
Knives, chopping	-	-	-	-	5
Knives, blubber	-	-	-	-	5
Harpoons, plain	-	-	-	-	6
Harpoon's gun	-	-	-	-	1
Deep-sea leads, 150 pounds weight	-	-	-	-	1
Ditto,	100	ditto	-	-	1
Ditto,	50	ditto	-	-	1

The following stores were intended for building and repairing whale boats, in addition to the quantity supplied for twenty-six lunar months.

Board fir, one inch	-	-	-	612 feet.
- half inch	-	-	-	528
- three-quarters ditto	-	-	-	1,568
Deal-wood flitches	-	-	-	10 No.
Stems	-	-	-	5
Stern ports	-	-	-	5
Keels, running	-	-	-	100 feet.
Gun wales, ditto	-	-	-	310
Cants	-	-	-	10 No.
Bollards	-	-	-	5
Aprons	-	-	-	10
Futtocks	-	-	-	64
Knees	-	-	-	60
Floors	-	-	-	51
Bow and after timbers	-	-	-	36
Thwart stuff running	-	-	-	88 feet.
Board elm, one inch	-	-	-	196
- three-quarters ditto	-	-	-	511
Ocham, white	-	-	-	56 lbs.
Rosin	-	-	-	56
Ring bolts	-	-	-	12 No.
Stem bands	-	-	-	12

Nails, boat,	-	6 lbs.	-	20,000 No.
-	-	8	-	10,000
-	-	10	-	10,000
-	-	4	-	4,000
-	-	3	-	4,000
-	-	2	-	4,000
-	-	22 oz.	-	4,000

GUNNER'S STORES.

The ships were provided with ordnance, as follows : —

Isabella, carronades,	No. 6 - 18	pounders.
Dorothea, ditto,	6 - 18	ditto.
Alexander, ditto,	4 - 12	ditto.
Trent, ditto,	4 - 12	ditto.

With powder and shot for three years, besides an extra allowance of fine powder, of six cases to each of the larger ships, and to all a proportion of small shot of various sizes.

Gunner's stores for three years, of every description ; an armourer's forge in each of

the large ships, and tool chest complete for armourer and carpenter.

The following were intended for presents to the natives on the West coast of Greenland and coast of America, &c.

Brass kettles	-	-	-	24 No.
Knives, forks, and cases	-	-	-	300
Axes, felling, wedge	-	-	-	20
Butchers' knives	-	-	-	150
Flannel, red	-	-	-	150 yards.
yellow	-	-	-	100
blue	-	-	-	100
Felling axes	-	-	-	10 No.
Looking-glasses	-	-	-	200
Needles, Whitechapel	-	-	-	2,000
Vermilion	-	-	-	15 lbs.
Cutlasses	-	-	-	36 No.
Gun-flints	-	-	-	1,500
Scarlet-milled caps	-	-	-	100
Swords	-	-	-	14
Thread, Red	-	-	-	20 lbs.
Pistols	-	-	-	16 No.
Scissors	-	-	-	30 pairs.
Razors	-	-	-	40 No.

Coarse handkerchiefs	-	-	50
Awls, shoemakers'	-	-	100
Rifles	-	-	35
Balls for ditto	-	-	2,500
Snuff	-	-	102 lbs.
Earthen-ware	-	-	4 cases.
Soap	-	-	150 lbs.
Pikes	-	-	250 No.
Iron hoops	-	-	200 cwt.
Gin (English)	-	-	129 gal.
Brand	-	-	129
Various beads and Cowrie shells			13 cases.
Umbrellas	-	-	40 No.

AN ACCOUNT showing the Distribution of Sixty-nine Iron Provision-Tanks, furnished (for the better convenience of Stowage) to the several Vessels employed on a Voyage of Discovery in the Arctic Regions.

	Iron Tanks.		Ft.	In.	
Isabella,	9	of	3	8	each tank contained 1008lbs. of biscuit.
—	9	of	3	0	each contained from 13 to 16 cwt. of flour.
—	4	of	3	0	each contained 23 bushels of pease.
Dorothea,	8	of	3	8	These tanks were directed to be filled with whatever denomination of provisions the respective commanders and pursers might think most advantageous for stowage.
—	14	of	3	0	
Trent	13	of	3	0	
Alexander,	12	of	3	0	
Isabella and Dorothea	} One oven, of 2 feet, furnished by Storey for baking bread with little fuel,				

The following Quantities of PROVISIONS and VICTUALLING STORES were put on board each of the Vessels undermentioned; being the established Allowance for Twenty-six Lunar Months, for the Number of Men expressed against the Ships' Names respectively.

Ships' Names and Complement.	Pounds of		No. of	Pounds of					Bushels of		Gallons of			Pounds of					Capillaire, gallons.	lb.	The Ships were ballasted with Coals.	Chaldrons of Coals.
	Bread.	Flour in lieu of Bread.		Flour.	Suet.	Raisins.	Cocoa.	Sugar.	Pease.	Oatmeal.	Wine.	Spirits.	Vinegar.	Tobacco.	Lemon Juice.	Sugar for Le- mon Juice.	Candles.	Molasses.				
Men. Isabella - 50	18200	18300	1300	2600	7800	1000	600	1950	3900	162½	30	700	192½	325	2600	227½	2184	1539	2220			
	18200	18200	1300	2600	7800	1000	600	1950	3900	162½	30	700	192½	325	2600	227½	2184	1539	2220			
Dorothea 50	12740	12740	910	1820	5460	710	400	1365	2730	113½	21	490	1347½	227	1830	1592½	2184	774	1520			
	12740	12740	910	1820	5460	710	400	1365	2730	113½	21	490	1347½	227	1830	1592½	2184	774	1520			
Trent - 35	12740	12740	910	1820	5460	710	400	1365	2730	113½	21	490	1347½	227	1830	1592½	2184	774	1520			
	12740	12740	910	1820	5460	710	400	1365	2730	113½	21	490	1347½	227	1830	1592½	2184	774	1520			
Alexander 35	61880	61880	4420	8840	26520	3420	2000	6680	13260	532½	102	2380	654½	1104	8840	7735	8736	4626	7480			
	170	61880	4420	8840	26520	3420	2000	6680	13260	532½	102	2380	654½	1104	8840	7735	8736	4626	7480			

The following STATEMENT comprehends the PROVISIONS and VICTUALLING STORES furnished to each of the Vessels employed on a Voyage of Discovery, in addition to the established Allowances; besides, to the Isabella and Dorothea, five gallons concentrated Vinegar.

Ships' Names.	Cases of Essence of Malt and Hops.	Pounds of Preserved Meats.	Quarts of Vegetable Soup.	Quarter-Pints of Concentrated Soup.	Essence of Spruce, Pots.	Pounds of								Potatoes, Tons.	Bushels of				Gallons of Pickled		
						Mint.	Balm.	Sage.	Thyme.	Majoram.	Savory.	Lemon Thyme.	Celery Seed.		Turnips.	Carrots.	Parsnips.	Onions.	Sour CROUT, Pounds.	Walnuts.	Cabbages.
Isabella	53	5200	1300	1300	144	40	30	16	6	6	3	6	30	6	10	20	4	12	224	20	20
Dorothea	53	5200	1300	1300	144	40	30	16	6	6	3	6	30	6	10	20	4	12	224	20	20
Treat	37	3640	910	910	144	30	25	12	4	4	2	4	15	4½	8	15	3	10	224	20	20
Alexander . . .	37	3640	910	910	144	30	25	12	4	4	2	4	15	4	8	15	3	10	224	20	20
	180	17680	4420	4420	576	140	110	56	20	20	10	20	70	21	36	70	14	44	896	80	80

During our stay at Deptford, we were joined by John Sacheuse, an Eskimaux, native of South-east Bay, Greenland, in latitude 69° N., and longitude 50° W. It appears that he had concealed himself on board the Thomas and Ann, of Leith, in the month of May, 1816: on being discovered, Captain Newton, who commanded that vessel, wished to land him again, but he earnestly entreated to be permitted to remain, and was accordingly brought to Leith. He returned to Greenland with the same ship in 1817, and, on his arrival at home, found that his only near relation had died in his absence. It was not ascertained, at his first outset, what were his motives for quitting his native country; but it seemed now that the death of this relation was his reason for continuing in the ship, which he did, returning to Leith with her the same season. I had several conversations with him on the subject; he related many adventures and narrow escapes he had experienced in his canoe, in one of which he stated himself to have been carried to sea in a storm with five others, all of

whom perished, and that he was miraculously saved by an English ship. He also informed me that he had, through the missionaries, been converted to Christianity, and the strong desire he had to see the country these good men came from, had induced him to desert his own ; but that it was always his intention to return, when he had learnt the Scriptures and the art of drawing. He related several traditions current in his country respecting a race of people who were supposed to inhabit the north ; adding, that it was for the purpose of communicating with them, and converting them to Christianity, that he had volunteered for our expedition.

During his residence at Leith, in the winter of 1817, he had been taken notice of by Mr. Nasmyth, the artist, who introduced him to Sir James Hall. His wishes to accompany us were made known to the Admiralty through Captain Basil Hall, and he was consequently engaged as our interpreter. His utility to us in communicating with the natives will be apparent in the course of this Narrative. He returned,

like the rest of the crew, in perfect health, during the passage home; often repeating that, when he had got more instructions on religion, he would return to the *wild people*, and endeavour to convert them to Christianity.

His meritorious conduct was represented by me to the Admiralty in the strongest terms; their Lordships treated him with the utmost liberality, and, aware of the importance of his services on a future expedition, had taken steps to have him properly instructed, for which purpose he was sent to Edinburgh; here he was unfortunately attacked by a fever, which carried him off on the 14th of February, after a few days' illness.

Our equipment being completed, the expedition was inspected by his Royal Highness the Duke of Clarence, and subsequently by the First Lord of the Admiralty, and Comptroller of the Navy, who were pleased to express their approbation of the manner in which the Ships were strengthened and fitted; and, the provisions being stowed, we dropped down to Galleons on the 4th

of April, and received our powder and ordnance stores. On the 16th we arrived at the Nore, where the chronometers, and other instruments, were embarked, and where I received my final Instructions, a copy of which is included in the Appendix.

In concluding these preliminary remarks I shall here subjoin a copy of the rules and regulations issued by me to the officers and ships' companies of the *Isabella* and *Alexander*, at the commencement of our voyage, and at a subsequent period, which were to be attended to, in addition to the "Printed Instructions" of His Majesty's Navy.

I.

The officers to be in three watches, viz. —

1. Lieutenant Robertson and Mr. Bushnan.
2. Mr. A. M. Skene and Mr. Wilcox.
3. Mr. J. C. Ross and Mr. Lewis.

The seamen are to be in three watches, and each watch divided into two parts.

II.

The senior officer of the watch is to write in the rough log every occurrence, filling up the different columns during his watch, or as soon as possible after he is relieved; he is also to pay attention to the meteorological occurrences, and in like manner insert them in the rough journal; both the log and journal are to be kept in charge of the sentinel at the cabin door.

List of Meteorological Observations to be attended to.

1. Hour.
2. Temperature of the air.
3. Temperature of water at the surface.
Or, if in deep water, the number of fathoms and temperature to be inserted in the column of remarks.
4. Specific gravity of water. N. B. A bottle is to be saved for this purpose at each watch.
5. Altitude of marine barometer.
6. Altitude of thermometer on deck.
7. Direction of the wind.

8. Weather; whether cloudy, clear, snowy,
or rainy.
9. Hygrometer.
10. Soundings,
11. Rise and fall, } }
12. Velocity, } } of the tides.
13. Drift or direction of the tides or currents.
14. Officers' signatures.
15. The aurora borealis is to be inserted in
the remarks, with observations on
its effects on the magnet.

III.

The Captain is to be immediately acquainted,

1. On a change of wind.
2. On the change of weather.
3. On appearance of fog, (when the helm
is to be put up to join the Alexander,
if at a distance to leeward, out of
musket shot.)
4. On the appearance of fog clearing away.
5. On appearance of snow.
6. On the appearance of ice (sufficient to
impede progress).
7. On the appearance of shoal water.

8. On sight of land.
9. When necessary to reef topsails.
10. When necessary to let out reefs.
11. On any sudden squall.

IV.

The deck is never to be left without an officer, but when the ship is taken suddenly in a squall, the sentinel is to call the captain, at the desire of the officer.

V.

The officers are required to take observations whenever an opportunity offers; they are to keep a reckoning, and to give in a day's work regularly at noon, as follows :—

Latitude by observation,

Latitude by account,

Longitude by chronometer,

Longitude by observation, ☉ — (or) — *

Longitude by account,

Course,

Variation,

Bearings,

Distance.

VI.

Three marines are to be selected, as constant sentinels to relieve each other at the door of the cabin. The sentinel for the time is to have charge of the magazine, instruments, stores in the cabin and gun-room, the rough logs and journals, half-hour glass, the light in the binnacle, and other things which may be put into his charge by the captain and officers; a board is to be hung up to remind him of the winding up of the chronometers at nine o'clock, which he is to report to Captain Sabine; and he is not to be relieved until he can report to the next sentinel that the chronometers are wound up and compared.

VII.

Serjeants Martin and Wise are to have charge of the stoves on the lower deck, the issue of fuel, the fires, and lights, which they are to report regularly to the officer of the watch, as well as any disturbances in the ship.

VIII.

Captain Sabine is to be called whenever he leaves word with the officer of the watch, or when any remarkable object is seen in the sky or water.

IX.

The course is never to be altered without the captain's knowledge or directions, except in a case of immediate danger, when the helm is to be put up or down, as may be best to avoid it.

X.

A good look-out is to be kept from the mast-head in clear weather, and the mast-head man to be relieved every hour, or as may be hereafter directed in daily orders.

XI.

The lower deck is to be cleaned under the direction of the officer of the morning watch, who is to report, when finished, to the captain; the men are to be sent on deck, and the 'tween decks aired and dried by stoves.

XII.

The surgeon and assistant-surgeon are to pay particular attention to the temperature of the lower deck, and any thing else which may be conducive to the health of the crew; the latter is to visit the coppers, as is usual in the naval service.

It is expected they will pay great attention to natural history ; and a report will be required of the anatomy of the various subjects of natural history which may be met with on the voyage.

XIII.

No expenditure of any article is to be made, but what is regularly reported to the captain and purser, and inserted in the log.

XIV.

The bearing and distance of the Alexander is to be inserted at the end of every watch in the log-book ; and, if lost sight of, the time and bearings when last seen are to be inserted, as also the time and bearings when she is next seen, and every necessary

step to be taken to join her if out of musket-shot.

XV

All signals, whether general or telegraphic, are to be inserted in the log; the time when made, the number, and purport.

XVI.

The officers are required to take sketches of the land, and of different objects which may appear in their watches.

XVII.

All objects of natural history, geology, and mineralogy, are (if possible) to be brought carefully on board; and if any cannot be removed on account of their size, sketches and drawings are to be taken of them.

ADDITIONAL ORDERS.

At Sea.

“It is my direction, that the officers of His Majesty’s Ship *Isabella* do transmit to

me the accompanying Monthly Report of Observations, filled up, for the information of my Lords Commissioners of the Admiralty.

“JOHN ROSS, Captain.

“*May 31. 1818.*”

GENERAL ORDER.

“It is my direction, that every specimen of the animal, vegetable, and mineral kingdoms, which may be found or procured by any person employed in the ships under my command and orders, shall immediately be brought to me; that I may give such directions respecting their disposal as I may think fit; and all officers going on any service to the shore, or ice, or having communication with the natives, are to use their utmost endeavours to collect and procure every thing which may contribute to the advancement of natural knowledge; and of the larger animals, and other objects which cannot be removed, sketches and descriptions are to be taken; and all such reports, descriptions, &c. are to be signed

INTRODUCTION.

by the officer, and sent to me for His Majesty's service.

“ Given on board His Majesty's Ship
Isabella, at Sea, this 17th day of
August, 1818.

“ JOHN ROSS, Captain.

“ *To the respective Officers of
His Majesty's Ships Isabella
and Alexander.*”

GENERAL MEMORANDUM.

“ Pursuant to orders from my Lords Commissioners of the Admiralty, &c. &c.

“ You are hereby required and directed to deliver to me, the moment the ship anchors on England, all the charts, logs, journals, and memoranda, both of a public and private nature, which you may have kept during the time you have been on board the ship under my command, which are to be sealed up, and kept at the disposal of their Lordships; and you are to sign an acknowledgment, according to the

form annexed, for the satisfaction of their Lordships.

“ Given on board the *Isabella*, this 9th day of November, 1818.

“ JOHN ROSS, Captain.

“ *To the respective Officers of His Majesty's Ships Isabella and Alexander.*”

FORM.

“ We, the undersigned, do hereby certify, that we have delivered (sealed up) all the logs, journals, and memoranda, we have kept on board the *Isabella*, between the 1st of May and date hereof, for the purpose of being delivered to the Lords Commissioners of the Admiralty.”

ORDERS TO THE ALEXANDER.

“ *By John Ross, Esq., Captain of His Majesty's Sloop Isabella, and Senior Officer, &c. &c. &c.*

“ Pursuant to directions from my Lords Commissioners of the Admiralty,

“ You are hereby required and directed to put yourself under my orders, and follow

all such instructions as you may from time to time receive from me.

“ Given, &c. this 13th day of April,
1818.”

“ *By John Ross, Esq., K. S., Captain of
His Majesty's Sloop Isabella, and
Senior Officer, &c. &c. &c.*

“ His Royal Highness the Prince Regent having signified his pleasure, that an attempt should be made to find a passage, by sea, between the Atlantic and Pacific Oceans: And whereas the Lords Commissioners of the Admiralty have appointed me to the chief command, requiring me to take His Majesty's brig, under your command, under my orders; and, being furnished with Instructions to try to find a passage by way of Davis' Strait, &c. you are hereby required and directed to pay strict attention to the following orders for your further proceedings.

I.

The Alexander's station on the weather-quarter two cables' length distant.

II.

In event of a fog, the ship to leeward will heave to, and fire guns, or musquets, according to the distance, until taken in tow, or within sight or hail.

III.

In case of unavoidably parting company, to proceed to Love Bay, in the Island of Disco, and wait the arrival of the *Isabella*.

IV.

To take every opportunity of making astronomical and meteorological observations on the passage; a copy of which to be transmitted to me by every opportunity, after a week's interval.

V.

Lieutenant Hoppner to be employed, when an opportunity offers, in taking views of any land which may be seen, and in making drawings of any subjects of natural history which may be met with on the voyage: these to be regularly transmitted to me, with his name affixed to them.

VI.

A good look-out to be kept, and signals made, when any thing remarkable is seen.

VII.

When sent to look out, always to return at dusk, or on thick weather coming on, without signal; unless ordered otherwise by signal or special orders.

VIII.

Crews to be victualled at full allowance, and no increase or decrease to be made, without my special orders.

IX.

A report to be given in weekly, or as soon after as convenient, of provision and fuel.

X.

No boats to be sent on any service or excursion, without permission, except for the immediate safety of the ship.

XL

The bearings of the *Isabella* to be inserted in the log at the end of every watch; and, if lost sight of, the time when last seen, and time of re-appearance; and it being my intention, should the sea be found open, to sail direct up the Straits to the northward, it is requested you will particularly call the attention of your officers and crew to keeping company with the *Isabella*, on which materially depends the safety of both ships; and should any accident happen, or occurrence take place, which may oblige the *Alexander* to shorten sail, the attention of the *Isabella* is to be called by firing guns; or, if dark, by a blue light, and every precaution taken to avoid separation.

“ Given under my hand, on board the said Sloop, at Shetland, this 1st day of May, 1818.

(Signed) “ JOHN ROSS, Capt.

“ *To Lieut. W. E. Parry,*
Commander of His Majesty's
Sloop Alexander.”

*" His Majesty's Ship Isabella,
Lerwick, May 3. 1818.*

" SIR,

" Herewith you will receive orders and instructions for your further proceedings ; also fifty printed papers, one of which, after having filled up the blanks, is to be put into a bottle, carefully sealed up, and thrown overboard, at noon, every day, after passing latitude 65° N., provided the *Isabella* is not in company ; the receipt of these you will be pleased to acknowledge.

I am, Sir, &c.

" *To Lieut. W. E. Parry.*"

MEMORANDUM.

" Isabella, at Sea, July 20. 1818.

" In order to obtain the advantage and use of the Acadian code of signals, it is my directions, that the pendants, denominated in the table of flags in the general signal-book 'distinguishing pendants,' when hoisted *superior*, shall relate to the Acadian code, and express the horizontal, ~~or~~ up line of figures, in the vocabulary. The vertical line being expressed *inferior* by the square

flags from one to nine, the ciphers, substitutes, &c. being used as they stand in the signal-book, and the half white and red pendant to be used as in the example.

(Signed) "JOHN ROSS, Capt.
" *To Lieut. Parry, Alexander.*"

"It is my direction, that the officers of the respective watches in the *Alexander* do pay particular attention to the log-courses, signals, and meteorological observations; and that each column in the rough log-book shall be filled up by the officer who actually kept the watch at the time the observations were made, or as soon as possible after he is relieved; and his initials are to be at the same time entered in the proper column opposite the end of his watch.

"Given under my hand, on board the
Isabella, at sea, August 21. 1818.

(Signed) "JOHN ROSS, Captain.

MEMORANDUM.

"It is my directions, that an order to the above effect shall be written in the beginning, and referred to in the next page

of the Alexander's log-book ; and that you will cause the officer having the forenoon watch, to bring you the log-book for your inspection.

“ Given, &c. August 21. 1818.

(Signed) “ JOHN ROSS, Captain.

“ *To Lieutenant Parry.*”

“ *By John Ross, Esq., Commander of His Majesty's Sloop Isabella, and Senior Officer, &c. &c. &c.*

“ Whereas the issuing of preserved meat and soups may be very conducive to the preservation of the health of the ships' crews,

“ You are hereby directed to cause the purser of the sloop you command, to issue a proportion of one pound of preserved meat, and one pound of vegetable soup per man, a week ; the former in lieu of salt beef and pork, the latter in addition to the established allowance. In regard to the issue and expenditure of preserved meats, &c. you are to be guided by the instructions furnished by the Commissioners for

victualling His Majesty's Navy; and for so doing this shall be your *order*.

“ Given under my hand, on board the
Isabella, at sea, this 2d day of
September, 1818.

(Signed) “ JOHN ROSS, Captain.
“ *To Lieut. Parry, Alexander.*”

“ *By John Ross, Esq., Captain of His
Majesty's Sloop Isabella, and Senior
Officer in the Arctic Seas, &c. &c. &c.*

“ In pursuance of directions from my
Lords Commissioners of the Admiralty,
bearing date April 16. 1818,

“ You are hereby required and directed
to cause one set of the additional warm
slop-clothing to be issued, gratis, to each
of the seamen and marines serving on
board the sloop you command; and that
any further surplus should be charged, sub-
ject to their Lordships' future consider-
ation.

“ Yours, &c.,

“ JOHN ROSS, Captain.

“ Sept. 21, 1818.

“ *To Lieutenant Parry, &c.*”

“ Not to be opened until passed to the South of latitude 58° North.

“ *By John Ross, Esq., Captain of His Majesty's Ship Isabella, and Senior Officer of His Majesty's Ships, &c. &c. &c.*

“ Pursuant to orders from my Lords Commissioners of the Admiralty, &c.

FORM.

“ We, the undersigned, do hereby certify, that we have delivered, sealed up, all the logs, journals, and memoranda, we have kept on board the Isabella, or Alexander, between the 1st of May and date hereof, for the purpose of being delivered to the Lords Commissioners of the Admiralty.”

“ *By John Ross, Esq., Captain, &c.*

“ You are hereby required and directed to proceed, (as soon as wind and weather permit,) without loss of time, to Galleons, in the River Thames, taking from hence a pilot for the Nore; and you are to report your arrival there, or any intermediate port

you may put into, to the Secretary of the Admiralty.

“ Given under my hand, on board the
Isabella, Humber, this 14th day
of November, 1818.

(Signed) “ J. Ross, Captain.

“ *To W. E. Parry, Lieut. and
Commander of His Majesty's
Ship Alexander.*”

“ *To Lieut. Robertson, (b) First
Lieutenant H. M. S. Isabella,
and Commanding Officer.*”

ORDERS to DAVID BUCHAN, *Esq.*
*Captain of His Majesty's Ship Dorothea,
and Commander of the Polar Expedition.*

“ PURSUANT to the directions of my Lords
Commissioners of the Admiralty, that se-
veral places of rendezvous should be ap-
pointed, and the annexed having been
agreed upon as the best ; you are acquaint-
ed that His Majesty's Sloop Isabella will
leave on each of the four first-mentioned
places (if she can approach them), several

marks on the shore, consisting of white with a red cross, twelve feet north by compass, of which a bottle will be found three feet under ground, containing information; and, the Dorothea and Trent are required to do the same, should they pass before the Isabella and Alexander.

“ You are also informed, that a red over a blue ensign at the fore, is the private signal at Columbia River. The Isabella is to remain at St. Peter and St. Paul until the 15th of October, and then to be found at Owhyhee, refitting and wintering.

“ Given under my hand on board the Isabella, at the Nore, 20th April, 1818.

(Signed) “ J. Ross, Captain.

“ *To Captain Buchan,
His Majesty's Ship Dorothea.*”

RENDEZVOUS REFERRED TO.

Cape Lisburne	{ Lat. 69° 05' 00" N. Long. 165° 22' 30" W.
Cape Mulgrave	{ Lat. 67° 45' 30" N. Long. 165° 12' 00" W.
East Cape	{ Lat. 66° 05' 30" N. Long. 169° 44' 00" W.
Choukotchkoi Noss	{ Lat. 64° 14' 30" N. Long. 173° 31' 00" W.
Awatska Bay	{ Lat. 53° 00' 37" N. Long. 158° 44' 30" East.
Karakakooa Bay in Owhyhee	{ Lat. 19° 28' 10" N. Long. 155° 56' 23" W.

EXPLANATIONS OF SEA TERMS

USED IN ICY SEAS.

Iceberg, an insulated mountain of ice.

A Field, a piece of ice so large that its extent cannot be seen.

A Floe, a piece of ice of a considerable size, but the extent of which can be distinguished.

A Patch, a number of pieces of ice overlapping and joining each other.

A Stream, a number of pieces of ice joining each other in a ridge on any particular direction.

Loose Ice, a number of pieces near each other, but through which the ship can make way.

Sailing Ice, a number of pieces at a distance, sufficient for a ship to be able to beat to windward among it.

Brash Ice, ice in a broken state, and in such small pieces, that the ship can easily force through.

Cake Ice, ice formed in the early part of the same season.

Bay Ice, newly-formed ice, having the colour of the water.

Hummocks of Ice, lumps of ice thrown up by some pressure, or force, on a field or floe.

Heavy Ice, that which has a great depth in proportion, and is not in a state of decay.

A Lane, or *Vein*, a narrow channel between two floes or fields.

Beset, surrounded with ice, so as to be obliged to remain immoveable.

Nipt, caught and jammed between two pieces of ice.

A Tongue, a piece projecting from the part of an iceberg which is under water.

A Calf, a piece of ice which breaks from the lower part of a field or berg, and rises with violence to the surface of the water.

A Barrier, ice stretching from the land ice to the sea or *main* ice, or across a channel, so as to be impassable.

Land Ice, ice attached to the shore within which there is no channel.

Sea Ice, ice within which there is a separation from the land.

Main Ice, a body of impenetrable ice detached from the land, but immoveable, and between which and the ice attached to land, are *floes* and *lanes*.

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A

VOYAGE OF DISCOVERY

TO

THE ARCTIC REGIONS.

CHAPTER I.

SAILING OF THE EXPEDITION FROM THE RIVER. —
ARRIVAL AT, AND DEPARTURE FROM SHETLAND.

THE nature and objects of the expedition, described in the following Journal, have been so long familiar to the public, and were the cause of so much discussion before the sailing of the ships, that it is almost unnecessary to mention them. It is sufficient to say that the main object was to ascertain whether the bay, which had been so long laid down in our charts as the result of Baffin's discoveries, had a real existence, or whether the deficiency of his

April 18. Thames to Shetland.

observations did not rather imply a hope, that the coast would somewhere, throughout its extent, be found discontinuous. In this hope was implied the solution of a question which had for a long period been agitated, and respecting which much anxiety has, even to the present hour, prevailed; namely, whether a north-western passage existed through any part of this coast to the Pacific ocean? The other objects of a more general nature, and the particular views entertained by the Admiralty on this subject, may be deduced from their lordships' instructions, which will be found in the Appendix, as the arrangements made for the voyage may be seen in the Preface.

These arrangements, which were made with every attention to the comfort and health of the crews, and the ultimate success of the expedition, were completed about the middle of April, 1818; and on the 18th, His Majesty's Discovery Ships *Isabella* and *Alexander*, selected for this service, the former commanded by myself; the latter by Lieutenant W. E. Parry,

April 30. Lerwick.

under my orders, dropped down to Gal-leons. From the prevalence, however, of contrary winds while in the river, and our subsequent detention at Sheerness, for the purpose of paying the crews an advance of three months' wages, it was not until the 25th that our pilot left us off Cromer.

The next day being Sunday, the signal was made for Divine service, which was answered by the Alexander. The quarter-deck was fitted up with flags and benches in the usual manner, and prayers were read according to the forms established in His Majesty's navy. The solemnity with which this service is always attended on board of a ship, was here more than usually conspicuous and impressive, from the prospect that was opening before us, and the uncertainty of the event with which a voyage of this nature was likely to be accompanied. The articles of war were afterwards read, as is usual at the outset of every voyage, and all sail was then made to the northward with a freshening breeze.

On the 30th we reached Lerwick in

May 1. Brassa Sound, Shetland.

Shetland, where we found His Majesty's ship *Ister*, Captain Forrest, by whom we were most kindly replenished with water and provisions. Here too we were fortunate in acquiring the addition to our establishment of an excellent seaman, who was discharged, at his own request, by Captain Oliver, from the *Prince of Wales* revenue cruizer, in order to join our expedition. He was accompanied by another volunteer, who did the duty of cook on board, and who was also a performer on the violin. This latter talent we often found of use in our operations of tracking the ship through the ice; the severity of this labour being lightened by the character of amusement which was given to it, in consequence of the tracking party being always led by the musician. He also served to divert the people in those unoccupied hours when the spirits of seamen are apt to flag for want of objects, or to be employed in mischievous practices subversive of discipline.

William Mouat, Esq., of Gardie, in

May 2. Brassa Sound, Shetland.

Brassa Island, an old and intimate friend, had been anxiously expecting us; and, on our arrival, hastened on board to offer the accommodations which his spacious mansion afforded, for our astronomers and their instruments. This offer, together with a hearty invitation to his house, was most thankfully accepted; and we accordingly landed, taking with us the clock, dipping-needle and chronometers, and immediately began our observations.

On the following morning, our first care was to erect the portable observatory, fix the transit instrument, and measure its elevation. Altitudes for time were obtained, and I was gratified to find, by means of the chronometers, that the longitude of Gardie agreed with the observations I had made on the same spot in 1815.

This day the *Dorothea* and *Trent*, Discovery Ships, commanded by Captain Buchan and Lieutenant Franklin, which were to proceed by the east of Greenland for the Polar Passage, arrived; the latter in

May 2. Brassa Sound, Shetland.

so leaky a condition as to render it necessary to haul her on shore for repair.

Captain Forrest, of the *Ister*, performed the same good offices for these ships as he had done for those under my command; and afforded every other assistance in his power, till he was obliged to leave us in obedience to his orders from the Admiralty.

In getting under weigh, the *Ister* dropped so near to the shore that it became necessary to anchor again, and when brought up she had only eighteen feet water under her stern. Her signal for assistance was promptly answered by our boats, and I had much satisfaction in witnessing the cool and zealous conduct of the officers and men employed on the occasion; from whence I could fairly anticipate what their energies might effect in situations of greater hazard, to which we ourselves might hereafter be exposed. Anchors were laid out, and the frigate was warped into a place of safety; but she was unable to proceed to sea until the day after.

May 2. Brasa Sound, Shetland.

At noon the weather was so cloudy that we were disappointed in our hopes of observing a transit; and, during the rest of the day, a party was busily engaged in making observations on the dip of the needle, and on the intensity of the magnetic force; while others amused themselves in searching for specimens of the animal, vegetable, and mineral kingdoms on the island.

In the course of this day the Prince of Wales sailed, and by her I sent letters, with an account of our proceedings to the Secretary of the Admiralty.

On the following morning the packet arrived from Leith, having on board, as a passenger, Doctor Hibbert; from whom we received a visit, as we also did from Doctor Edmonstone, and from several friends, inhabitants of the island.

On the following day, the observations on the dipping-needle and the clock were pursued, but the weather again disappointed us of a transit; and, the wind coming round to the South, I determined

May 3. Leave Shetland.

to sail on the ensuing morning. Part of our apparatus was accordingly embarked that evening, and a bullock, which the liberality of Mr. Mouat had spared us, was taken on board our ship.

But I must not quit this scene of our early operations without offering my testimony to the zeal displayed by all the officers who were engaged in the observations. The ardour of the naturalists was also displayed in a manner which excited the mirth of our friends in the island. A large piece of a back-bone was brought with great pains to Gardie, under the idea that it might possibly be part of the skeleton of a Mammoth ; but it proved to be that of a whale, as might have been expected. It was not however our interest to discourage this warmth by indulging in ridicule, had the effects of the ignorance of our young naturalists been even more ludicrous.

The rest of our instruments having been brought off, at day-light, on the 3d of May, we prepared for sea ; and the signal was

May 3. Leave Shetland.

made for sailing. At eight o'clock, A. M., we took leave of the *Dorothea* and *Trent*; and our two ships, with a moderate breeze of fair wind, stood out of the North Channel.

After we were under sail, Mr. Mouat came on board, anxious to assure us of his warmest wishes for our success. It is impossible to express, in adequate terms, the high obligations we were under to this worthy friend; and it will be readily believed that we did not part without regret, particularly as we were now on the point of bidding adieu to the last vestige of our native land, with a voyage of uncertain length before us; and it was not with hearts unmoved that we left these shores.

At noon we passed within Whalsey Island, and from thence through the Sound of Yell, the wind favouring us in every winding of the channel; and at three o'clock the Pilot left us, bearing our farewell to our families and friends.

CHAP. II.

CONTINUATION OF THE VOYAGE. — OLOF KRAMER'S SHOAL. — EXISTENCE OF THE SUNKEN LAND OF BUSS DOUBTED. — SIGHT OF THE FIRST ICEBERG. — ARRIVAL AT DAVIS'S STRAIT. — OBSERVATIONS ON CHRONOMETERS.

THE remainder of the 3d of May, and the several following days, were not marked by any occurrences of moment as far as regarded our ultimate operations, and will therefore be slightly passed over.

We steered W. N. W. by the compass, from the rock of Stour Holme, in order to make allowance for southerly winds, which were to be expected in our course to Cape Farewell. General orders relating to discipline, and to the accomplishment of scientific objects, were issued to both ships.

On the 4th we saw a strange sail, probably an American, which passed to windward without noticing us.

The Isabella having run considerably a-

May 8. Lat. $59^{\circ} 28'$. Long. $17^{\circ} 22'$. Var $16'$ W.

head of her consort, during a breeze that sprung up, almost approaching to a gale, we hove to ; when the weather moderating, we had leisure for sounding, but found no bottom in one hundred and fifty fathoms.

'Some observations on the temperature of the air, and on the specific gravity and temperature of sea-water, together with the result of experiments made by the registering thermometer, and in water drawn up by the bottle contrived for the purpose, were registered in the *Norwegian journal*.

In the evening of the 8th we communicated with the *Alexander*, in order to share with the crew Mr. Mann's tobacco. We found she had drifted near water through fog, but without receiving any material damage.

Continuing our course, we sailed on the 8th of May, in the afternoon a thick fog laid down in front of us, so that we were obliged to anchor. We were told that in some parts of the coast the fog is very dense, and that it is very difficult to see the coast.

May 8. Lat. $59^{\circ} 28'$. Long. $17^{\circ} 22'$. Var. 35° W.

At this time among other provisions of shelter against the inclemency of high latitudes, our carpenter was busied in making what the sailors call a crow's-nest. This is a kind of hurricane-house, fixed at the mast-head, to screen the look-out men from the weather; its form is cylindrical, and the entrance is through a trap-door at the bottom, on which the man within afterwards stands.

From the 9th to the 16th our progress was much impeded by contrary winds, generally from the west; but being somewhat variable, we took advantage of every occasion to make tacks. There were few occurrences of consequence. We had, however, during these days, many favourable opportunities of making observations on the variation of the compass and on the chronometers, in which the two ships generally agreed pretty well.

Lieutenant Parry's hydrometer not being constructed so as to give the specific gravity of water by one observation, he supplied the deficiency by calculation. The azimuth

May 17. Lat $57^{\circ} 28'$. Long. $28^{\circ} 20'$. Var. 45° W.

and Jennings's compasses were sent from the *Isabella* on board of his ship, and I had reason to believe that a difference which appeared on this comparison, of at least three quarters of a point in the course of the ships, must rest with the compasses. I therefore made trial of several, and found that Jennings's insulated compass was the medium between all.

At one o'clock P. M., on the 16th, a light breeze sprung up from the eastward, and gradually increased till the evening, while the barometer rose, as is usually the case in easterly winds. We steered at first N. W. by N. ; but finding our latitude only 57° we altered our course to N. N. W.

The morning of Sunday, the 17th, broke delightfully, with pleasant, clear, invigorating breezes. Divine service was performed, and a sermon read to the ship's company ; and as the division of the crew into three watches afforded much leisure time for reading, I distributed some religious tracts among the men.

At noon we found ourselves exactly in

May 17. Lat. $57^{\circ} 28'$. Long. $28^{\circ} 20'$. Var. 45° W.

the latitude of the sunken land of Buss, as it is laid down in some charts, namely, $57^{\circ} 28'$ N.; and being desirous of determining whether such a bank really existed in long. $29^{\circ} 45'$, we altered our course, being then in $28^{\circ} 20'$, to N. W., for the purpose of ascertaining the fact. We made all sail ahead, kept a good look-out, with the lead constantly going; and, at sun-set, being near the spot, shortened sail, and hove to, in order to sound; but no bottom was found in one hundred and eighty fathoms. Our sounding was repeated every four miles, with no better success; and when the Alexander came up with us, being then thirty miles past the spot marked out for this sunken bank, we made sail, but still kept the lead constantly going.

The existence of this bank has long been doubted by the masters of Greenlandmen, and it is certainly not to be found where it has been laid down in the charts. Various tales respecting it were related by some of the people on board; but it appeared on comparing their testimonies, that no

May 19. Lat. $57^{\circ} 27'$. Long. $34^{\circ} 00'$. Var. 46° W.

soundings had ever been actually reached. I am more inclined to imagine, that when ships have been struck in this quarter by heavy seas, the shocks have erroneously been attributed to this imaginary shoal.

Early next morning the weather was fair; but about seven o'clock the wind veered to the westward, and it grew hazy. We continued our soundings, but without finding ground; and held on constantly in the same parallel of latitude. An uprooted tree without branches, measuring three feet seven inches in length, was picked up. It appeared to have been long at sea, and pieces of it were preserved.

May 19. — This day the wind was fair, but the weather thick and unpleasant. Fearing that the ships might part in the fogs that appeared then, beginning to set in, I made signal of my intention to steer N. W. by N.

In the course of the day I received Lieutenant Parry's Weekly Report, and found that his chronometers differed from ours, giving twelve miles further East.

May 19. Lat. $57^{\circ} 27'$. Long. $34^{\circ} 00'$. Var. 46° W.

His observations also of the sun and moon, which had before agreed exactly, were twenty miles west of our chronometers and lunar observations. From the latter agreeing so much better with each other than his, I was confirmed in my opinion of the accuracy of our own observations.

The progress made in the use of Captain Kater's altitude instrument reflected great credit on the skill and perseverance of Lieutenant Parry and Mr. Bisson; but we never could succeed in observing altitudes by the whirling horizon of Troughton.

That instrument is otherwise known by the name of the Nautical top, and had been materially improved by that ingenious artist since its first invention in the last century by Mr. Serson. In the state in which we had it, it consisted of a cylinder of brass of about four inches in diameter, hollow, and covered at the top by a plate of blackened glass, in which the observed object was reflected. Since its return, an improvement has been made in it, by attaching to it a solid ring of brass by means of

May 19. Lat. $57^{\circ} 27'$. Long. $34^{\circ} 00'$. Var. 46° W.

four arms, and by giving to it, instead of a cylindrical form, that of an inverted frustrum of a cone, the base of which is six inches in diameter. The top is put in motion by a train of wheels connected with a winch, from which it is detached as soon as it has acquired its velocity, which is calculated, for the circumference of the base, at 30 miles in the hour.

The principle on which this instrument was founded is, that the upper surface of any similar body thus spun, will place itself in the horizontal plane. It was also imagined that this horizontal position was not disturbed by any inclination of the base on which such a spinning-top was placed. In our practice, however, this did not turn out to be the case; the motions of the ship producing sensible deviations in this respect, amounting in some cases to 30 minutes of a degree. Nor was our machine so perfect as to be divested of those lateral vibrations which produced a tremulous object, and which consequently

May 19. Lat. $57^{\circ} 27'$. Long. $34^{\circ} 00'$. Var. 46° W.

rendered it difficult to determine the contact with accuracy.

In the afternoon of this day a piece of blubber was picked up by the *Alexander*, belonging probably, as its colour denoted, to a whale that had been killed; and Lieutenant Parry supposed, as it was too early in the season to have come from a homeward-bound ship, that it had drifted down Davis's Strait, or between Iceland and Greenland. It was, however, my opinion that it had remained on some piece of ice, near Iceland perhaps, throughout the winter, and had thus been preserved in a frozen state, till the thaw took place.

A difference in the variation on board of the two ships was observed this day; but it had probably arisen from the influence of a spare anchor, which was stowed within a few feet of the compasses in the *Alexander*.

I now became anxious, in case of the two ships parting company, that the track I intended to pursue should be known;

May 23. Lat. $57^{\circ} 2'$. Long. $43^{\circ} 21'$. Var. 48° W.

and I therefore sent the following notice to Lieutenant Parry: —

To pass the lat. of 58° N. in long. 46° W.

Ditto	59°	52°
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Ditto	60°	54°
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Ditto	61°	56°
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Ditto	62°	57°
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and in that longitude to make a north course until we reached latitude 67° ; lastly, to steer direct for Love Bay in Disco Island.

Each ship showed a light this evening, and, with a little management, continued to keep company very well.

During the four following days we experienced almost every variety of weather. On the 20th we saw a cormorant, and a bird much like a duck, being the first birds of the kind we had seen since we had left Shetland. Our sails received some damage on the 21st, in a gale of wind, which moderated the day after, and we had clear weather.

On the 23d we continued our course to the northward; and though the atmosphere was again clouded, we were able to pursue

May 24. Lat. $57^{\circ} 33'$. Long. $44^{\circ} 32'$. Var. 48° W.

our observations as usual. This evening I remarked the appearance of a current, and the next day it was ascertained by hoisting out our boat, that it set W.N.W. (true), running at the rate of a quarter of a mile an hour.

We proceeded on the 24th with a favourable breeze, which had been increasing since the night before, and became fixed at seven in the morning at S.E. All sail was set and we went before the wind. The N.W. current was still manifest; but, being unwilling to delay our course, I did not try its strength, contenting myself with committing to the waves, enclosed in a small copper cylinder, one of the papers furnished by the Admiralty, containing a request in six European languages, that wherever found, the time and place might be noted, and the contents of the vessel sent to the Secretary of the Admiralty. These languages were the English, French, German, Spanish, Danish, and Russian. The latitude, longitude, and variation being inserted, it was carefully soldered in, and

May 24. Lat. $57^{\circ} 33'$. Long. $44^{\circ} 32'$. Var. 48° W.

thrown over-board, in latitude $58^{\circ} 13' 38''$ North, and longitude $46^{\circ} 15' 45''$ West, with every chance of a long voyage.

Observations for the chronometers and the latitude were taken; but it was too cloudy for observing the lunar distances. The ship being steady, we made observations by Lockwood's dipping-needle, but without any satisfactory results; the local attraction of the ship being so great as to disturb the position of the needle in this and in all other instances where the same attempts were made. At seven o'clock, having run forty-two miles since noon, the *Isabella* had an offing of above one hundred miles from the nearest part of Greenland, and we altered the course to N. N. W.

At eight in the evening, the weather growing thick, with every presage of a gale, we double-reefed top-sails, and shortened sail for the *Alexander*. I gave strict orders for the men to be placed on the look-out, and to hail every ten minutes, as we were passing up the straits, where icebergs might be expected.

May 26. Lat. $58^{\circ} 36'$. Long. $31^{\circ} 00'$. Var. 49° W.

May 26.— During the night our light had not been seen from the Alexander, and she was far astern. We shortened sail till noon, when she came up with us. The course was altered to north, by the wind, and we had opportunities of making observations for the chronometers. By these we found that the latitude agreed; but we had been set by the current a few miles to the westward.

At two o'clock on this day, we had the first sight of an iceberg, covered with snow, bearing N.N.E., at a distance of eight or nine miles. From a calculation made by means of comparison between two objects, it appeared to be about forty feet in height, and a thousand feet long.

Imagination presented it in many grotesque forms: at one time it looked something like a white lion and a horse rampant, and served to amuse the sailors, who naturally enough shaped it into the lion and unicorn of the King's arms, and were accordingly delighted with the notion of good luck which it seemed to them to augur.

May 27. Lat. $59^{\circ} 12'$. Long. $52^{\circ} 11'$. Var. 49° W.

It is hardly possible to imagine any thing more exquisite than the variety of tints which these icebergs display ; by night as well as by day they glitter with a vividness of colour beyond the power of art to represent. While the white portions have the brilliancy of silver, their colours are as various and splendid as those of the rainbow ; their ever-changing disposition producing effects as singular as they were to us new and interesting.

In the evening the weather was clear, and there was no ice in sight from the mast-head. The thermometer fell at night to 36° .

On the 27th, in the morning, I was enabled to take excellent lunar observations, which agreed with our chronometers, and also with the observations which were taken by Lieutenant Parry. On comparing my observations with his report, the variation appeared to be 48° with the ships' heads north. The Alexander's chronometers, however, did not agree by about thirty miles with ours, in consequence of which

May 27. Lat. $59^{\circ} 12'$. Long. $52^{\circ} 11'$. Var. 49° W.

Lieutenant Parry was dissatisfied with them, and determined to give them new rates from the 1st of June.

On the 28th of May the weather was thick and cloudy, but not enough to conceal several icebergs, which appeared in sight. We had a fine steady breeze and smooth water, till eight in the evening, when the wind changed to the southward and continued in that quarter all the night. As we now hourly expected to fall in with the ice, we kept the *Alexander* near us and carried the sail most proper for manœuvring to avoid it, should we fall in with any in the haze, or during the night. The courses were hauled up, the topsails were double-reefed, and the top-gallant sails set over them.

Another copper cylinder, with a detail of our situation, was thrown overboard, in latitude 61° N., and longitude $53^{\circ} 25'$, near a very large iceberg, which we passed at nine P.M. It apparently drifted to the westward, though we could perceive no current.

May 31. Lat. 63° 53'. Long. 55° 03'. Var. 57° W.

There was so little darkness during any part of this night, that the features of the people on the fore-castle were distinctly visible from the quarter-deck. At three in the morning (29th) it began to snow, and continued through the day. We saw little ice: the thickness of the weather, indeed, limited our view to about two miles round us, and prevented our taking any observations. About one P. M. the Alexander made a signal for an iceberg to the eastward, but we could not discern it through the falling snow.

Sunday, May 31. — Several floes of ice were seen, chiefly in a state of decay: the large iceberg, however, which we had passed, was entire. It consisted, apparently, of three parts, the uppermost being of indurated snow, and the rest opaque, with a blueish transparent vein, which intersected it horizontally. It presented on one side a precipice about eighty-five feet in height, gradually declining to about fifteen: the circumference appeared to be about twelve hundred feet, and, except at the snowy top, it had

May 31. Lat. $63^{\circ} 53'$. Long. $55^{\circ} 05'$. Var. 57° W.

much the appearance of a rock, with the addition of the peculiar brightness before described. This day the church service was performed, and a sermon read, as usual. Something like land was seen in the evening, but without distinctness. The temperature of the air was 28° , and that of the water at the surface 32° .

Being the last day of the month, I made preparations for summing up all the comparisons of the different chronometers, in order to determine their rates for the ensuing month. The results were as follows:—Earnshaw's, No. 1024, which had been daily compared with six others, was found to continue gaining, at its original rate, one second each day on mean time for the month of May. This had been proved by observations taken at Shetland, and from several sets of lunar observations made by different persons on board of the *Isabella* and *Alexander*; it agreed also with the mean of the seven chronometers. Its original rate, therefore, of one second per day, was considered to be established, and carried to

May 31. Lat. $63^{\circ} 53'$. Long. $55^{\circ} 05'$. Var. 57° W.

the month of June. In like manner, Earnshaw, No. 815, was found to increase its rate from $54''$ to one second each day. Arnold's chronometer, No. 369, was found to be fast of mean time at Greenwich, $12' 18''$, and to be gaining $5\ 5$ per day. Parkinson's and Frodsham's, No. 228, was found to have kept, during May, a steady rate of $12' 5''$ a day, and to be fast of Greenwich $9' 24''$. Arnold's, No. 25, when compared with Earnshaw's two chronometers, and the means of the rest, and also with the result of lunar observations, was found to have preserved a steady rate of $4''$ per day, and to be $1' 10'$ fast of mean time at Greenwich. All these, resting on equal proofs, were respectively allowed for in the following month. Arnold's pocket chronometer, probably from its glass being broken, had not settled to any rate; but having been repaired, I began to wear it in my pocket at this time. Thus ended the month of May.

CHAP. III.

PROGRESS UP THE STRAITS. — OBSERVATIONS. — INTERCOURSE WITH THE NATIVES. — DIFFICULTIES IN THE ICE. — ICEBERGS. — ARRIVAL AND DETENTION AT WAYGATT.

June 1. THE weather during this day was moderate and cloudy, but towards the evening it became calm and delightfully serene. Nothing can exceed the beauty of these summer evenings, while the length to which they are protracted is no less surprising to those to whom these regions are new. The contrast between the warm yellow tints of the sky, and the cold blue of the land and the floating ice, is equally striking; the whole presenting the appearance of summer with the reality of winter.

The variation was found to be about 58° W. when the ship's head was N. E. by E., and the calculations on the rates of the

June 1. Lat. $63^{\circ} 41'$. Long. $55^{\circ} 42'$. Var. 57° W.

chronometers, which I had made, were carried to account.

On the 2d of this month some light and variable breezes sprang up, attended by occasional falls of rain and snow. Whenever the breeze became fair every advantage was taken of it, and in the course of the day we fell in with a large stream of loose ice. Towards noon much field-ice was seen towards the North, and we were compelled to change our course to avoid it, tacking twice before we could clear the outermost floe. At nine in the evening the wind fell, but not till we had passed through a stream of this ice. The Alexander, sailing much worse than the Isabella, was far astern, and cleared it with some difficulty.

The sea-birds were not numerous, but a few of the peterel genus and of the smaller auk were shot. Several seals were also seen, together with a bottle-nosed whale.

In the former part of the day, about noon, being then in latitude 65° and longitude $56^{\circ} 30'$, a paper in the several lan-

June 1. Lat. $63^{\circ} 41'$. Long. $55^{\circ} 42'$. Var. 57° W.

guages before-mentioned, and describing our situation, was enclosed in a bottle, and dropped into the sea ; for the purpose, as was explained on it, “ of determining the
“ current from Davis’s Strait: var. 57° West,
“ the water smooth, and no perceptible
“ current ; several icebergs and pieces of
“ loose ice seen near the place ; and no
“ soundings in four hundred and fifty fathoms: Alexander in company, steering
“ N.E. by E. by compass.”

It was erroneously imagined that we had been set towards the west by a strong current since the morning, and the boat was hoisted out to ascertain the fact, but no effect of a current was apparent ; we afterwards discovered that the idea originated in the observers having read off a wrong degree from the sextant, in the afternoon’s altitudes for the chronometers.

On the following day we had a fresh breeze against us. The snow was still falling, and it felt extremely cold, the thermometer in the air being at 29° , and in the water 31° . The barometer stood at $29^{\circ} 47'$.

June 4. Lat. 65° 42'. Long. 24° 24'. Var. 24° W.

At one P.M. we saw the land to the south of Coquin's Sound, where Baffin was said to have landed on his return from his last voyage. It bore from E. by N. to South, being about fifty miles distant, according to the judgment of the master who had frequently seen it; though to me it appeared not more than thirty-eight miles. We tacked and sounded in forty-five fathoms, about forty miles from the shore. Several large icebergs were passed this day; and at two P.M. we threw over-board a paper similar to the last.

June 4.—The wind, from being moderate, became squally at noon. We tacked to avoid the field-ice, and standing E.S.E. had no soundings, but discovered land from East to S.E. about fifty-five miles distant. We then sounded and found bottom in seventy fathoms. A large iceberg was seen to the W.S.W. a-ground, and as the depth of water was here so considerable, it must have been of great size. At two P.M. when we thought ourselves about forty-five miles from land, we sounded in fifty fa-

June 4. Lat. $65^{\circ} 42'$. Long. $24^{\circ} 64'$. Var. 58° W.

thoms, and the mud machine brought up a piece of coral. Another copper cylinder, with the usual notice, was thrown overboard this day. It was here apparent that there could be no current, for the ship, notwithstanding she made a point and half leeway, gained a few miles to windward. As the difference of the ship's course between the larboard and starboard tacks was only $9\frac{1}{2}$ points instead of 12, I was led to believe that the deviation occasioned by the ship's attraction was considerable, and in order to obtain its proportions, I observed the azimuth with the ship's head on different directions, and made the signal to the Alexander to do the same. These observations completely proved that my suspicions were well founded; and it hence appeared to me, that in order to determine the true course steered, it would always be necessary to observe an azimuth on that course. In this instance, for example, on one tack, the variation appeared to be six, while on the other it was only four points. It was therefore obvious that the deviation caused by

June 4. Lat. $65^{\circ} 42'$. Long. $54^{\circ} 54'$. Var. 58° W.

the local attraction of the ship produced a different influence on the variation of the needle, according to the position of her head. As these were the first observations on this subject that I had occasion to make during the voyage, the numerous disturbing causes which influence the action of the ship's magnetic power on the needle did not yet appear, and it was only in subsequent parts of our progress that the increase of my experience led to the conclusions which will be found detailed in the Appendix in a scientific form, and in so full a manner, as to render any very particular notice of them unnecessary in the progress of the narrative.

For the present, taking my rules from the effects actually observed, I allowed six points for standing to the North and West; and four points and a half for standing East and South.

His Majesty's birth-day was celebrated with the usual ceremony of hoisting colours and flags, but it blew too fresh for saluting.

During the night the wind freshened very

June 6. Lat. $65^{\circ} 46'$. Long. $55^{\circ} 10'$. Var. 58° W.

North; but when her head was about E.S.E., the same hummock bore N.W. $\frac{1}{2}$ W.; making a difference of three points and a half, which could only have been occasioned by the local attraction of the iron in the ship. Soft green mud was brought up on sounding in three hundred fathoms, during a calm, at seven o'clock. A boat was here anchored to try for a current, but none was perceptible, and so far, therefore, none of the currents which we had been led to expect had yet been found.

From Lieutenant Parry's report, the Alexander's chronometers appeared to have gone at a more steady rate than heretofore. A deviation of two points in the Alexander's compasses was supposed to have been occasioned by the side lamps having iron in their construction.

A bottle was this day thrown overboard, containing a paper with the usual remarks. The variation by azimuth, with the ship's head East, was $59^{\circ} 30'$ West. At midnight the wind came round from the North to

June 7. Lat. 66° 27'. Long. 56° 57'. Var. 23° W

S.W., and we steered N.E. by E., allowing five points variation, to make our course true North.

At eight in the morning, Sunday the 7th, several pieces of ice were in sight, and the day was marked with the customary observance of divine worship.

During the forenoon we fell in with a stream of ice, which obliged us to steer E. by N. At half past four we had much difficulty in weathering a point of fixed ice; we succeeded, however, by means of pushing through several streams and packs of heavy ice, in the midst of a considerable swell that added to the danger of our situation. A gale then came on, and we close-reefed our topsails. The land was seen about eleven, bearing S. E. by E., at a distance of forty miles; and at midnight we sounded in fifteen fathoms, when I judged we were about seven leagues from the Savage Islands. There was here the appearance of a tide, but as it blew hard we had no opportunity of trying its strength.

On the 8th we had strong gales, and

June 8. Lat. $68^{\circ} 10'$. Long. $57^{\circ} 26'$. Var. 60° W.

cloudy weather, steering various courses along the land, to avoid the field-ice and the bergs, which were now numerous, floating about us in all directions. We continued to proceed northward, and, at four, made out the Romel Port and Savage Islands. Though we were in fifteen fathoms for four hours, the master thought the land was distant twenty-five miles. It was thus evident that some bank or shoal exists in this place, and it is not improbable that it will be found to reach all the way from this point to the shore. At nine, seeing fixed ice from the mast-head extending from the land, we hauled to the northward by compass, making a West course, and steered between the grounded icebergs, among packs and streams of ice. One of the icebergs was three hundred and twenty-five feet high, and twelve hundred feet in length; a torrent of water was running down its side.

Towards noon thick weather came on, and at two we stood to the Southward, in order to avoid the fast ice, which we found

June 9. Lat. $69^{\circ} 22' 15''$. Long. $53^{\circ} 46' 45''$. Var. 66° W.

extending from S. E., by N. E. to N. W. Before this we had seen Wild Islands, with other land, which we took for Kirby's Island.

During the whole of this day we were plying among drift ice. In the evening we had moderate weather. I here pursued my observation of objects before and after tack-
ing, and found a deviation in the compass of three points in the morning, and two and a half in the evening. At eleven at night, after a fall of snow, the weather cleared up; and the master being of opinion that there was no passage, except close to the Greenland coast, we made sail and pushed through drift ice, making an E. by N. course, as near to the land as the ice would allow.

June 9.—The weather continuing moderate, we ran by the edge of the fixed ice, sailing along it till we approached the land, where we found it closely joined; and no water being to be seen over it from the mast-head, we made fast to an iceberg of convenient height, which was aground near

June 9. Lat. $68^{\circ} 22' 15''$. Long. $53^{\circ} 46' 45''$. Var. 66° W.

two small islands, that we supposed to lie off North Bay. The weather proving fine and clear, and deeming it expedient to go on shore, I directed Lieutenant Parry, and the Alexander's officers, to bring their instruments on the iceberg; where we all took excellent observations.

Some native Eskimaux came off to us, and we learnt from them that this berg had remained aground in the same place since the last year. They also informed us, that the ice was close all the way from thence to Disco, and that no ship had yet got up thither. We made our informers several presents; hoping, that in return, they would bring off some supplies of game and water-fowl for the ships' crews.

The two ships were swung in opposite directions, to ascertain the difference between the compasses on board, at each point, and those on the iceberg. The observations that were made, and the consequences deducible from them, will be found in the article on the deviation of the needle, which is placed in the Appen-

June 9. Lat. $68^{\circ} 22' 15''$. Long. $53^{\circ} 46' 45''$. Var. 66° W.

dix, which renders it unnecessary to dwell on them at present.

Various stones and a stratum of gravel were found on this iceberg, specimens of which were collected. Several rare birds also were killed on it, and the skins preserved.

During the night we ascertained the rise and fall of water to be four feet in neap tides; and the currents to be about half a mile an hour on the flood and ebb: the latter setting to the south two hours before high water. The iceberg was neaped at four feet, but there were marks on it indicating that the water had reached four feet higher.

At midnight I obtained the latitude by the altitude of the sun, and found it to be $68^{\circ} 23'$; the observed altitude was but $1^{\circ} 32'$; yet the result of this observation corresponded within one mile of that obtained from the observation previously taken on the meridian.

Early in the morning I took the necessary measures for surveying the place more

June 10. Lat. $68^{\circ} 22'$. Long. $53^{\circ} 46'$.

exactly. The officers, who had been sent to sound and take angles for this purpose, found a harbour, and an excellent road, within the nearest island; but, the ice happening to move from the N.E., the boats were recalled, and we cast off from the berg to avoid being beset. A main body of ice appeared to stretch off from the land to the westward, and Disco island was seen for a time from the summit of the iceberg, but was soon obscured by a fog.

As we stood off to the westward, I sent a party to get the meridian altitude, by an artificial horizon, from an iceberg, which bore nearly due west from the other. This was obtained, and the results agreed with our midnight latitude, as well as with those of the observations taken on board.

In the afternoon the weather thickened, and after running three miles toward the south, we discovered a channel of clear water stretching to the westward. We forced the ship through the intervening ice, and got into it; and continued all day and night beating to windward,

June 10. Lat. $68^{\circ} 22'$. Long. $53^{\circ} 46'$.

through numerous pieces of ice, that were all drifting to the north and south by the tide, which, in shore, was running to the northward, and in the offing, in the opposite direction. The weather was moderate, but foggy, and in the evening cloudy.

Next day the weather continued moderate, and, seeing no clear water to the northward, we bore up under all sail to the westward. A seal, weighing eight hundred and fifty pounds, was shot, and yielded thirty gallons of oil. A description of this animal, among other subjects appertaining to natural history, will be found in the Appendix, to which the greater number of these observations have been referred throughout this work, to avoid interrupting the course of the narrative.

At noon we fell in with several ships employed in the whale fishery; one of them belonging to Dundee, the rest to Hull. They had all been successful. From the master of one of these ships, the Brunswick of Hull, we gained intelligence that he had been in the bay to the westward of

June 12. Lat. $68^{\circ} 14' 2''$. Long. $54^{\circ} 15' 45''$. Var. 67° W.

Disco ; where, according to the chart, there is "good anchorage." He had also seen Hare Island, and conjectured there was a good deal of clear sea about it. He had got into and out of South-East Bay, between two floes of ice. The whole bay between Dog and Whale Islands was covered with ice. The governor of the Whale Islands had informed him, that the ice had broken up, and froze again, no less than three times this season. He had not seen James's Island. He thought that the sea north of Disco might, before the time of our conference, have been clear, and that a passage to the North along the eastern shore was feasible. This ship had only that morning got clear of the ice, in which she and several others had been pent up for fourteen days, and they left four still beset. This fleet of whalers was seen running through the channel from whence we had come, in hopes of finding a passage.

After parting with this vessel our ships stood on a little, more to the west, and then to the south ; but, finding the ice

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... ..

firm. We looked into the tunnel and found the old position. When we were about 100 feet clear of the tunnel, the tunnel was being very thick. The tunnel was very fast to be seen. The tunnel was very hard to see.

[illegible]

and a small wooden building. The
and a small building. The house is
east. We can see the house, and
sailed a window. Among pieces of wood
the small house. We saw the five
whenever which had gone to the eastward.

June 13. Lat. $68^{\circ} 28'$. Long. $54^{\circ} 18'$.

ten miles North of the place where we had been: finding no passage, they were returning to the pool in which we then were.

At seven, it grew quite clear; and the island of Disco was plainly seen bearing E. by N.; we also saw seven ships beset by the ice, in South-East Bay. This ice, however, appeared open to the north-east, and then seemed to turn towards the part of South Bay where these ships were lying.

I here buried a bottle, inclosing remarks, in an iceberg, ascertained to be in latitude $68^{\circ} 15''$ north, longitude $54^{\circ} 10''$ west.

The following day we were continually working through quantities of pack ice; some of the pieces being full half an acre in dimensions, and drawing from five to ten fathoms water. Other smaller pieces were crowded together in such a manner, as to leave large holes and interstices among them; and through these we were constantly obliged to tack, warp, and tow the ships along, while the six strange vessels in company were employed in the same way.

June 14. Lat. $68^{\circ} 42' 45''$. Long. $53^{\circ} 49' 45''$. Var. 70° W.

About eleven we got into clear water, having passed the bar of broken ice which extended westward, from the land between Savage and North-bay Islands, to the field, or fast ice. At noon the centre of Disco Island bearing N.E., we had clear weather, and the water, as far as could be discerned from the mast-head, appeared to be clear. Towards the afternoon fresh breezes of adverse wind sprung up, and in the evening the weather was foggy. Signal guns were fired for the Alexander, which was not in sight, and we found a weak tide setting alternately into and out of Disco Bay, toward which we were standing.

June 14. — The morning was foggy, but at 5 o'clock it cleared away, and several sail were in sight near us.

About six we ran close to the largest of several Islands placed in the entrance of Disco Bay, which is called Whale Island. This is apparently six miles in length, formed of a black rugged sterile rock, of considerable elevation, but low when compared with the huge mountains of Disco, which

June 14. Lat. $68^{\circ} 42' 45''$. Long. $53^{\circ} 49' 45''$. Var. 70° W.

were seen over it. It has a good harbour, which has three entrances, but the best is pointed out by a flag-staff, and is on the S. W. quarter.

This island is called by the Danes Kron Prins Island, and is in lat. $63^{\circ} 54'$ N. and long. $53^{\circ} 30'$ W. Its inhabitants consist of the governor of the factory, his wife and children, together with six Danes, and an hundred Eskimaux, who are employed during the season in catching seals and whales: we found however that they had not yet taken any of the latter. Our chief object in communicating with this factory, since it could be done without loss of time, was to gain information respecting the state of the ice from the Danish resident; guns were therefore fired, and a kijack was dispatched with a message inviting him on board. This had the desired effect, and inspector Flushe, a respectable looking young man, who had been an officer in the Danish Navy, came on board in a boat manned with Europeans. His information was much calculated to damp our hopes of

June 14. Lat. $66^{\circ} 45' 45''$. Long. $53^{\circ} 45' 45''$. Var. 70° W.

getting to the northward this season, as he confirmed what the masters of the whalers had said to its full extent. During the eleven winters he had passed, not one had been so severe or protracted as the last: the sea had frozen up in the beginning of December, where it was usually open until February, and Disco bay and harbour, which were generally navigable towards the end of March, still continued shut. During the spring the ice had twice partly broken up, but had been reunited by a fresh formation of hard frost, before it could drift away. He considered our attempt to get much further to the North as hopeless, the Danes not having been able to communicate by sea for two seasons past with their Northern settlements. As an additional proof of the severity of the preceding winter, he told us, that they had this year been reduced to great distress for provisions, and had been obliged to kill their dogs for food, owing to the impossibility of procuring seals during the winter.

We were not a little surprised at this in-

June 14. Lat. $68^{\circ} 42' 45''$. Long. $53^{\circ} 49' 45''$. Var. 70° W.

formation, after the confidence with which the diminished rigour of the climate had been described at home before our voyage, and after the anticipations of success which had been so warmly entertained by those who had so eagerly entered into the plan for promoting it. The report of the Danish resident was certainly in decided opposition to those of the persons who had described the breaking up and dispersion of the polar ice, and who appear in this instance to have been guided rather by their imaginations than by a real knowledge of the circumstances attending this sea.

If the exaggerations of these reporters were of such a nature as to have misled ordinary readers, they ought not to have had that effect on those who were capable from general principles of judging respecting their improbable and unphilosophical nature.

It may easily be conjectured that our own opinions, which had in some measure been warped by the suggestions of that popular feeling under which we sailed, were now considerably changed, and that we henceforward

June 14. Lat. $68^{\circ} 45' 45''$. Long. $50^{\circ} 45' 45''$. Var. 70° W.

expected to encounter the usual difficulties of this climate, with the addition of those which the greater range of the objects to which our attention was directed, and the higher latitudes to which our course was directed, presented to us. We had indeed already found reason, in our hitherto short experience, to doubt of the unusual advantages of a clearer sea and milder climate, which were promised to us; and those among us, who amused themselves in recollecting the various reading which had occupied them before our departure, could not even help expressing their doubts that the climate of England was hereafter to rival that of Italy, and that every peasant would make his wine where he now with difficulty reared his apple trees.

We kept under these islands till the tide, which ran about a knot and a half an hour, changed in our favour. At eight in the evening a fresh breeze rose, and we stood toward the west; there was a considerable swell from the N. E.; but we sounded in one

June 17. Lat. $70^{\circ} 45'$. Long. $57^{\circ} 3'$. Var. 75° W.

hundred fathoms, half a mile to the south of Whale Islands.

On the following day we worked with all sail to the northward; Disco was in sight; and no ice except the bergs were to be seen.

A current was found here, running south (true), a quarter of a mile an hour. In the afternoon we boarded several Greenlandmen, and learnt that none of their ships had been able to penetrate further north than $70^{\circ} 30'$, and that we should fall in with ice in two hours, through which we might sail as far as Hare Island, where it became a solid body. At six we fell in with loose ice, and continued sailing through it. Firm ice was seen to the westward.

We proceeded next day, steering along the edge of the main ice, and a firm field stretching from north to south; we sailed on between large floes and among loose ice, the former becoming more numerous as we advanced, and the latter more closely packed, till at length we had only a narrow

Lat. 75° 42'. Long. 57° 1'. Lat. 75° 42'.

and crooked channel for our passage. At eight we saw a ridge of icebergs, of every variety and shape that can be imagined; many of them forming objects no less singular than picturesque, and presenting an infinite diversity in their grouping and in the splendour and brilliancy of their colouring.

Waygate, or Hare Island, was now bearing east of us; or, by compass, E. by N.

No water could be seen at the north end either to the west or north; we therefore hauled our wind, and, in company with the whalers, stood for Waygate. At eight in the evening we saw a large mass of ice to the N. E. side of the island. We were ashore, and, ascending the mountain, had a complete view of our situation.

We found here thirty-five men employed in the whale fishery, all engaged in the ice; and as there appeared to be little chance of our getting further in some days, I determined to turn our attention to the best account, and therefore proposed

June 18. Lat. $70^{\circ} 26' 17''$. Long. $54^{\circ} 51' 49''$. Var. 72° W.

for making observations on shore; for which purpose I ordered our observatory and instruments to be landed, and erected tents for the officers who were appointed to attend them.

On the 18th, our arrangements being completed, I went on shore at noon to take the sun's transit; but, as the result of all the observations will appear at length in the Appendix, it is only necessary to say here, that the latitude was determined to be $70^{\circ} 26' 17''$, the longitude $54^{\circ} 51' 49''$, and the variation $72^{\circ} 9' 28''$ west at the observatory, making a difference of five degrees in longitude, and thirty miles in latitude, from the situation as laid down in the Admiralty charts.

Here then we rested, having within our view from the mountain, land stretching to the N. E. $\frac{1}{2}$ N. by compass; Jacob's Bight, bearing E. by N.; the Waygatt, Four Island Point, and Disco, S. W. by S.; and the North Point of Hare Island N. by E.; the whole forming a semi-circle from the land north of Waygatt to the wall of ice

June 18. Lat. $70^{\circ} 26' 17''$. Long. $54^{\circ} 51' 49''$. Var. 72° W.

westward; with at least seven hundred icebergs in sight. Pools of excellent water were found on the iceberg to which we were attached, from which the ships were supplied. While on shore, parties were occupied in collecting specimens of natural history.

I here received much useful information from Mr. Muirhead, Master of the *Larkins*, who, in his last voyage, had been in $75^{\circ} 15' N.$, and ran two hundred miles only from the land.* He thought that our only chance of proceeding northward, depended on our keeping close in with the land; and that if we kept to the westward it would be almost impossible to effect our object.

During our stay here, the iceberg to which our ships were fastened, suddenly got afloat, and was carried with great rapidity toward the west; it soon, however,

* It had been reported he had been four hundred miles from the land, on a W. S. W. course. He steered N. N. W. by compass, and allowed eight points variation; but the deviation of his ship not being known, his true course cannot be determined.

June 18. Lat. $70^{\circ} 26' 17''$. Long. $54^{\circ} 51' 49''$. Var. 73° W.

grounded again, and the Alexander remained attached to it; not having followed our example in laying hold of another which was more secure, near to which we drifted at the time the former gave way.

We here found the weather hot and sultry, as it is invariably observed to be with a clear sky in these latitudes at this season. We had rarely indeed reason to complain of cold throughout our voyage, unless in falls of snow, with east winds, or in foggy weather, when the sun was obscured, and the ice settled on our rigging.

CHAPTER I.

DEPARTURE FROM WILKES — THROUGH THE
THICK ICE TO THE OPEN SEA — THE
SECOND AND THIRD DAYS OF IT — THE
ICE — ACCOUNT OF THE DEATH OF A WHALE
FROM THE ATTACK OF ONE OF THESE ANIMALS —
REMARKS ON THE WHALES OF THE
ARCTIC — REMARKS ON THE WHALES OF THE
ARCTIC — REMARKS ON THE WHALES OF THE

WE continued in our severe struggles
at Wainwright till the 24th of June: and in
the evening of that day, the ice having
loosened considerably, as it is found in
present position in August in the straits
on, we determined to take of some ice
being and the every effort to get away.
Thus we effected to find a narrow
channel with the water being somewhat
towing and winding the ship across parts
of ice, through which it was impossible to
pass, so that a passage. After a few
whales followed our passage.

At two on the following morning we were

June 22. Lat. 70° 35'. Long. 54° 25'. Var. 75° W.

again completely beset, and carried toward the South-East by the tide; but, after several hours, we managed to proceed slowly by warping until eight o'clock, when we were again beset, and carried to the North-West; the boats were then hoisted up, and it being Sunday, Divine service was performed. In the afternoon we made fruitless efforts to pursue our course, being carried to and fro by the tide, and surrounded with heavy ice, in which the *Isabella* underwent extreme pressure; while the *Alexander*, which had escaped to the shore north of Waygatt, was there hemmed in.

The next morning, at four, a light breeze sprung up from the South-East, and the ice separating a little, we made all sail in order to force through the masses; all the while warping, tracking, and cutting, until we at length succeeded in getting into a channel which led to the North. The *Alexander* was now in company, and at four o'clock we arrived at Four Island Point, where we found the whalers, which had headed us, stopped by the ice. Here we took

advantage of the current, and then on to it.

I landed here and examined the sea in every direction.

There is a large house, and a small factory, and some weathered buildings, all apparently deserted. The sea is a burying-place in which the sea has the surgeon of a thousand and thousand human souls.

During the night a great storm, and a high water the current, to which the ship was moored, got along and struck against the West; it was carried along the shore with great violence by the tide which was running two miles an hour.

At eleven, we found the current was somewhat cleared away, and when the tide suited, we were able to move a calm for about four miles and were moored to another berg. The reindeer were here discovered.

June 24.—As soon as the tide was in our favour this morning, and the sea was

June 24. Lat. 70° 44'. Long. 54° 24'. Var. 73° W.

peared open for a few miles, we cast from the iceberg, and re-commenced our labour of towing; all the boats were out, and we proceeded along shore, the Master at the mast-head keeping a sharp look-out for rocks. The ice obliged us to pass on within a musket-shot of the land, and close upon some sunken rocks.

At one o'clock, when both ships were in a very dangerous passage, a light wind from the North-West put the ice suddenly in motion; in spite of every exertion, the *Isabella* was driven into sixteen feet water, and the *Alexander* was, for a few minutes, actually aground.

The whalers, which were astern, sent their boats and aided, by every means in their power, the exertions of our own men to free the ships from this perilous situation, which was accomplished by running hawsers out to the nearest berg, and heaving the ships through the ice. The conduct of the Masters of the *Egginton*, *Brothers*, *Ingria*, and *Thornton*, all of Hull, was highly meritorious, and they received, as

June 25. Lat. 74° 45' N. Long. 32° 30' W. Sea 2-4

they deserved, our acknowledgments for their ready services. The first-mate of these ships having headed us, was persevering in her course, when she was of a sudden beset by a large floe of ice, and carried on shore; we had then an opportunity of making a return for the kindness we had experienced, and assisted in liberating her.

For the remainder of the day we continued fixed to an iceberg, together with about thirty other ships, all anchored in safety within pistol-shot of the shore. I sent a boat to the land with persons to collect specimens of natural history; our situation being then eight miles North of Four Island Point.

Next day the ice appeared around us in a compact body, and no clear water was to be seen from the top of the mountain under which we were moored. The people had some rest, which was much wanted after the incessant fatigues of the several preceding days.

We found that a serious accident had happened on board the Ariel whaler, a

June 25. Lat. $70^{\circ} 44'$. Long. $54^{\circ} 20'$. Var. 75° W.

boat belonging to her having been crushed by the ice against the ship's side, by which one of her crew was killed, and another much hurt.

On the following morning the ice was in motion. About nine o'clock we were towed to an iceberg two miles eastward of our former position, and there made fast, letting the ice drive by us. Though it was a dead calm where we were, there was evidently a strong breeze in a bay within three miles of us; and at one o'clock, it appearing possible to warp through the ice, we cast off from the berg, and at half-past four, by dint of labour, succeeded in getting into the steady breeze; it was so strong that we could only carry single-reefed topsails; we tacked occasionally, and continued working to N. N. E. (S. E. by compass) till midnight, when we found ourselves close to the land-ice near Unknown Island, so called by the Danes.

At half-past one, the *Isabella* was the farthest North of the forty-one sail, but she was soon impeded by falling in with a

June 29. Lat. $70^{\circ} 54'$. Long. $54^{\circ} 10'$. Var. 76° W.

compact body of ice reaching from the North to the West. We moored, together with twenty other ships, to a field of ice which joined with part of Unknown Island.

On this morning we obtained some good lunar observations : three sets of mine agreed within a mile of each other, and within $1' 15''$ of the chronometers ; we had also eight sets of azimuths, by Kater's compasses on the ice, at a distance from the ships, and eight other sets on board. The ship's head was turned four points at each set till she had been round the compass. The result of these is shown, together with other observations, in the Appendix, where the deviation of the needle is described.

It was the opinion of the Masters of the neighbouring whalers, that the first breeze of Easterly wind would disperse the ice, and enable us to proceed to the North. Mr. Lawson, of the *Majestic*, who possesses great local knowledge of the coast, recommended, as our only chance of getting northward, that we should keep between the ice and Greenland ; he promised to

June 29. Lat. $70^{\circ} 54'$. Long. $54^{\circ} 10'$. Var. 76° W.

follow us as far as he could to bring home our dispatches.

The following day, being Sunday, the crews attended Divine service, and the whole twenty-four hours were spent in sailing about a basin of ten miles in circumference.

On Monday, the weather being moderate, I ordered the Eskimaux, John Satcheuse, who had accompanied the expedition from England as interpreter, to go on shore and communicate with the natives.

Lieutenants Parry and Robertson, with other officers, were also sent on board the ship *Eagle*, of Hull, to enquire into the circumstances of an outrage charged upon her crew, of burning a Danish factory at Four Island Point.

It appeared from their report, that two seamen of the *Eagle*, in a fit of intoxication, had set fire to one house, and were prevented by the boat's crew of another vessel from committing a like outrage upon a second. Some stores were found on board the *Eagle*, which the commander protested

June 29. Lat. $70^{\circ} 54'$. Long. $54^{\circ} 10'$. Var. 76° W.

he had taken on board for the purpose of giving them up to one of the settlements lower down the Straits. The whole affair, however, had a very equivocal appearance, and it came out on examination, that more than one ship had participated in the plunder. Under these circumstances, I felt it my duty to represent, what I considered a wanton outrage, to the Lords of the Admiralty, and to the Danish Governor of Greenland.*

The prospect from the mast-head was one of interminable ice, but that which was near us was evidently growing weaker, and continued dissolving the next day.

Our Eskimaux returned with seven natives in their canoes, or kajacks, bringing a small supply of birds.

Their village, lying on the south side of the bay, appeared to consist of a few huts made of seal-skins, sufficient for the resi-

* It is proper to add, that since the first edition of this work was printed, the ship-owners of Hull have made ample reparation to the sufferers.

June 30. Lat. $70^{\circ} 56'$. Long. $54^{\circ} 8'$. Var. 77° W.

dence of about fifty persons. Being desirous of procuring a sledge and dogs, I offered them a rifle musket for one completely fitted, which they promised to fetch; with much honesty of principle, however, refusing to accept the rifle till they had brought the sledge. They soon returned, bringing the sledge and dogs in a boat managed by five women, dressed in deer-skins. The boat was called an umiack, and was rowed by the women standing. I found that two of these women, taller than the rest, were daughters of a Danish resident by an Eskimaux woman. One of the men also was the son of a Dane, and they were all of the colour of Mulattoes. The man had been in charge of the Danish factory which was burnt by the crew of the *Eagle*, and I therefore gave him a letter to the Governor of Greenland, acquainting him with the circumstance, and describing what I had done.

We soon became intimate with our visitors and invited them into the cabin, where they were treated with coffee and biscuit,

June 30. Lat. 70° 56'. Long. 54° 8'. Var. 77° W.

and their portraits taken. After leaving the cabin, they danced Scotch reels on the deck with our sailors, to the animating strains of our musician.

Sacheuse's mirth and joy exceeded all bounds; and, with a good-humoured officiousness, justified by the important distinction which his superior knowledge now gave him, he performed the office of master of the ceremonies. An Eskimaux master of ceremonies to a ball on the deck of one of His Majesty's ships in the icy seas of Greenland, was an office somewhat new, but Nash himself could not have performed his functions in a manner more appropriate. It did not belong even to Nash to combine in his own person, like Jack, the discordant qualifications of seaman, interpreter, draughtsman, and master of ceremonies to a ball, with those of an active fisher of seals, and a hunter of white bears.

A daughter of the Danish resident, about eighteen years of age, and by far the best looking of the group, was the object of Jack's particular attentions; which, being

June 30. Lat. 70° 56'. Long. 54° 8'. Var. 77° W.

observed by one of our officers, he gave him a lady's shawl, ornamented with spangles, as an offering for her acceptance. He presented it in a most respectful, and not ungraceful manner, to the damsel, who bashfully took a pewter ring from her finger and gave it to him in return: rewarding him, at the same time, with an eloquent smile, which could leave no doubt on our Eskimaux's mind that he had made an impression on her heart.

After the ball, coffee was again served, and at eight o'clock the party left us, well pleased with their entertainment, and promising to come back with a *skin-boat*, an article which, I conceived, might be useful on the ice. I permitted Sacheuse to escort them, chiefly that he might hasten their movements, and search for specimens of natural history.

There was now a considerable change in the appearance of the mountains, from the melting of the snow; and in the morning a light breeze arose. I was surprised that our Eskimaux and his countrymen did not

July 2. Lat. 70° 55'. Long. 55° 55'. Var. 79° W.

appear, and stood towards the village at the foot of the mountain, firing guns, but to no purpose. At six o'clock, the breeze having freshened considerably, I sent a boat ashore to bring him off; when the poor fellow was found with his collar-bone broken, having, with the idea, as expressed by himself, of "*Plenty powder, plenty kill*," overloaded his gun. The violent recoil had caused this accident, which prevented his managing his canoe; he was brought on board, and the surgeon reported that it would be some time before he could be cured.

We had soon the pleasure of seeing the ice begin to move and break up; a channel was found leading towards the Black Hook by the Majestic, of London, and every ship crowded all sail after her.

At eight, we passed Unknown Island, and had a view of the North side of Jacob's, or North-east Bay, which, like the rest, has many inlets, surrounded with lofty mountains.

July 3. Lat. $71^{\circ} 58'$. Long. $56^{\circ} 2'$. Var. 79° W.

A vast number of icebergs occupied the bottom of this bay, having probably been generated there. At midnight we passed the Black Hook, after threading several narrow and intricate channels; and, early in the morning, we found ourselves safely through the second barrier: by mid-day we had made a degree of latitude through a channel apparently void of any current, where only a few icebergs and loose floes were to be seen; and we were then joined, through another channel, by the ships which we had left behind, at Waygatt. In this place the neighbouring land was not so mountainous, and the faces of the hills, especially near the sea, were less covered with snow than those to the southward. At four, we were abreast of Saunderson's Hope and in sight of Woman's Islands, which, by our observations, are more North and further West than they appear in the Admiralty charts. Some firm ice, which was seen to the Westward, induced us to keep near the shore, and we

July 4. Lat. $72^{\circ} 30'$. Long. $56^{\circ} 57'$. Var. 79° W.

passed an immense chain of icebergs, on one of which a bottle was left, containing a note of our visit.

A remarkable appearance of unequal refraction was observed here in the ships near us, and also in those at a distance. Those within two or three miles seemed to be extended to a monstrous height; while those at double the distance appeared to be drawn out in a horizontal direction, even to flatness, upon the water.

The next day we passed the third great barrier, consisting of large icebergs in vast numbers, which were aground in depths varying from sixty-three to one hundred fathoms. On this day we proceeded forty miles.

On the following day we took good observations. The variation on an iceberg was $80^{\circ} 1'$ West; and on board, the ship's head being W. by N. $\frac{1}{2}$ N., it was 98° West, making the deviation 18° on that point of the compass.

On the 7th, after the clearing away of a

July 7. Lat. $74^{\circ} 2'$. Long. $58^{\circ} 45'$. Var. $80^{\circ} 1'$ W.

thick fog, land was seen true East, and we stood in for it, finding it impossible to penetrate further North while keeping far off the shore. At eight, we passed in shore near the Three Islands described by Baffin, about nine miles from the land, which formed a bay, within which several smaller islands were seen. We found the water deeper as we neared the shore; first it was sixty-five, then one hundred and fifty, and inside the three islands, one hundred and sixty fathoms. The sun was not visible; but, as we were here stopped from proceeding, the dipping needle was sent on shore, and the dip was found to be $84^{\circ} 9' 15''$. Numerous birds of various kinds were found on these islands, and preserved as specimens. A whale was also seen about this time, being the first since we entered the Arctic circle.

The greatest part of the two following days was spent in moving backward and forward among the ice, striving in vain to find a way onwards; and in the end, we

July 7. Lat. $74^{\circ} 2'$. Long. $58^{\circ} 45'$. Var. $80' 1''$ W.

returned to the Three Islands, where it seemed most probable that the ice would open first, as the water was there deepest.

On the Southernmost island I erected a flag-staff, and had the bearings taken with great exactness by Kater's compass, when a series of observations were made on the deviation of the magnetic needle. I also went on board the ship *Harmony*, of Hull, Mr. M'Bride, Master, and made various observations, to determine how far the extraordinary deviation of the needle prevailed on board the ships in the whale trade. I found it still greater than in the *Isabella*, being fully four points.

The next day we stood into Kingston's Bay to determine its position, and in the evening returned to the Three Islands.

On the 13th, after making observations on shore for the chronometers and the variation, we returned on board just as a thick fog was coming on; and the wind having shifted to the N. E., we took advantage of the ice beginning to move, to make sail, continuing to work through,

July 15. Lat. 74°. Long. 58°. Var. 85° W. .

though with great difficulty, from our being enveloped in a fog.

In standing to the West, we fell in with floes of immense magnitude driving to the South, and were compelled to return toward land. Now and then we got into a bight, and, after beating up several miles, were disappointed by finding no exit, and thus obliged to retrace our way. In this and the following day, notwithstanding these various impediments, we managed to get forward about fifteen miles; at length, however, we were under the necessity of lying to; and I employed some of my unoccupied time in constructing an instrument for bringing up substances from the bottom of the sea, to supply the place of our machine, which, from its defective workmanship, had been found ineffective, particularly in deep water. Our smith's forge was set up, and an instrument made after my model, on an entirely new principle, which answered extremely well. *

* For the description, see the Appendix and Plate.

July 16. Lat. $14^{\circ} 30'$. Long. $58^{\circ} 40'$.

On the 15th we spoke the ship *Zephyr*, and learnt that the Three Brothers, of Hull, had been crushed to pieces by the ice in Jacob's Bay, at the time when we were beset and in danger in that place. Fortunately, the crew escaped to the ice, and had been saved by the *Ingria*.

In the forenoon, observing the water to be more clear towards the East, we stood round a floe, and beat to the North-East. In the evening the ice appeared to be opening, and we passed a few miles West of the Three Islands. The weather was clear in the night, and the wind light and variable, till about four o'clock, when it shifted to the S. W., and we made all sail for a narrow opening which we saw in the ice, leading, but in a very crooked direction, about N. N. W. (true). Forty sail of whalers were in company, and several large whales were seen in this channel, bending their course North. Some were killed by the harpooners of the different ships.

I obtained a latitude by the altitude of

July 17. Lat. $74^{\circ} 44'$. Long. $59^{\circ} 6'$. Var. 85° W.

the sun at midnight, which was wanted, as we had not had any observations on the preceding day. We also sounded and found 450 fathoms, at a distance of about 8 miles from the land.

We continued our course with a fair wind up this channel, which grew every hour more narrow and intricate; at length two ice-floes closed in upon us, and we were thus completely jammed in, with the tantalizing sight of open water not a hundred yards a-head. The *Isabella* underwent a very severe pressure, but fortunately without damage, though she was lifted several feet out of the water; the concussion lasted fifteen minutes; the floes then receded a little, and favoured the exertions used to heave her through, which was effected after two hours' labour, by purchases brought from each quarter and bow to the windlass and capstern.

The *Alexander*, and some of our whaling companions, suffered in the same way, two miles from us to the Westward.

After being freed from this dangerous

July 17. Lat. 74° 41'. Long. 52° 6'. Var. 25° W.

situation, we ran three miles toward the North, and found a convenient place where we could lie to for our consort; in the meantime a thick fog came on, and we continued firing signal guns, to denote our position. At eight in the evening the *Alexander* came up, and we again proceeded under all sail. At midnight we reached the end of the channel, where we made fast to a floe, together with three whalers which we had overtaken.

On the next morning at six, the ice opening to the North, we endeavoured, by every exertion, to work towards the entrance of the channel, but had no sooner attained our object, than it again closed in upon us, so that nothing could be done except by setting the crews to saw through the floes. As one of them however continued in motion, every effort was, for a long time, rendered fruitless, the parts closing again as fast as they were separated. In the evening a narrow passage was at length effected, and both the ships were warped through with great difficulty. In passing along another

July 18. Lat. $74^{\circ} 50'$. Long. $59^{\circ} 10'$. Var. 85° W.

narrow channel, further on, the *Alexander* was suddenly closed in; three boats were sent to her assistance; and after two hours' hard work, she was extricated.

We still held on, but a thick fog overtaking us, we were obliged again to be made fast to a floe, till clear weather should enable us to proceed.

For several days past we could get no distinct sight of land, and had passed almost unnoticed the remarkable headland, called the Devil's Thumb.*

July 18. — This morning the weather was more clear for some time, and we could see the land, but no passage through the ice could be descried. In the early part of the day a large bear was seen making towards the ships; one of the *Alexander's* men, who was straying at some distance on the ice, first discovered the animal, and went to meet it; but soon perceiving he was no match for it, he prudently halted, till Messrs. Beverley, Skene, and Ross,

* The Devil's Thumb is in lat. $74^{\circ} 30'$ N., according to the account of the masters of the whalers.

July 18. Lat. $74^{\circ} 50'$. Long. $59^{\circ} 10'$. Var. 85° W.

with some seamen, joined in the attack; the bear made off on their approach, and they had a tedious hunt after it in vain.

About noon, the weather having cleared considerably, the land, known by the name of the Horse's Head, was visible, and several remarkably shaped rocks were seen among the masses of ice, which covered the land as far as the sight could reach.

We continued in the midst of the ice on the next day, and were carried by it fast to the Northward.

After prayers, it being Sunday, I went on board the *Alexander* to visit her, and in the evening, the ice appeared plainly to be decaying, and changing its course to the Westward. It opened next morning, so as to allow us to warp and tow the ships; towards noon we had a light breeze, and the weather clearing a little, we were able to see the direction of the channel; but, about one o'clock, finding ourselves unable to proceed further, we were again made fast.

On the 21st the fog still continued, and intercepted our sight; but we saw by the

July 21. Lat. $74^{\circ} 50'$. Long. $59^{\circ} 40'$. Var. $85\frac{1}{2}$ W.

motion of the ice that there must be a passage open towards the North, and the wind having got round to the N. W., we made sail, keeping company with the *Alexander*, by the help of signal guns, till four o'clock, when we were again made fast to a floe.

The new sounding instrument being now finished by the armourer, who was an excellent mechanic, I ordered it to be tried : we were in smooth water, moored to the ice. It was lowered into the sea by a whale line of two and a-half inches, and in about six minutes it reached the bottom : on being hauled up it contained between three and four pounds of mud and stones. The name I gave to this instrument, was the Deep-Sea Clamm.

The weather clearing about five o'clock, we had the pleasure of seeing land, and an open passage through the ice leading Northwards ; the ship was immediately under sail, and passing several miles in that direction, we fell in with seven whalers which had got a-head of us while we were beset. We received a message from one of them,

July 23. Lat. $75^{\circ} 10'$. Long. $60^{\circ} 00' 15''$. Lun. Ob. $60^{\circ} 30' W$.

the *Everthorpe*, requesting surgical assistance for the master, whose thigh had been very severely lacerated by a wounded bear, which had attacked and dragged him out of the boat. The animal was pierced by three lances before it would relinquish its gripe, when, disengaging itself from the weapons, it swam to the ice, and made off. The poor man, though much wounded, was happily not considered to be in a dangerous state.

A calm now followed, and we continued all the night towing, sweeping, and warping the ships along. The land which we saw, was determined to be the Horse's Head, and the Red Head, in $75^{\circ} 12'$; being the highest latitude to which the ships employed in the whale trade were known positively to have penetrated.

The latitude, as observed by both the ships, this day agreed, and the variation, taken on the ice, was $87'$ West.

The succeeding twenty-four hours were wholly employed in tracking through the ice, a proceeding which becomes necessary

July 24. Lat. 75° 25'. Long. 60° 36'. Var. 86° W.

when the channel is too narrow to allow a vessel to beat, or to be towed against the wind. In executing this service, the whole ship's company was sent on the ice, and a rope was thrown to them, one end of which was fastened to the head of the fore-mast, for the purpose of keeping the bight clear of the uneven and sharp pieces of ice usually found at the edge of the field. The men having hold of the other end, then pulled the ship a-head, the musician always leading the way. As it sometimes happened that a hole, covered with snow, or a weak part was found, the men occasionally fell in, but as they never let go the rope, they were immediately pulled out. When this accident happened to the leader, it afforded the sailors great amusement, and they never failed to exercise their wit on the occasion.

Our labours of warping, towing, and tracking, continued the next day, during which we had to force through several large pieces of ice that blocked up the passage. The deep-sea clamm brought up a consider-

July 24. Lat. $75^{\circ} 25'$. Long. $60^{\circ} 36'$. Var 36° W

able quantity of mud from a depth of three hundred and fifty-six fathoms. About noon, in attempting to force between two large floes, we were jammed in, and perceived the *Alexander*, with two other vessels, a little way off, in the same circumstances. All hands were vigorously set to work, and the *Isabella* was freed in about three hours; every assistance was then afforded to relieve the *Alexander* with like success; after which we soon continued our voyage. About thirty or forty vessels were at this time to be seen from the ship's head, far to the westward and southward, and still moving in various directions.

We were now two or three miles from land, which was still visible through the ice, except a few small islands and rocks, where the water was deeper, and the ice appeared breaking through, and was being in some places melted by the sun's rays.

In the evening we were again sprung in, and were in the same circumstances, but in a few minutes we were again free.

July 25. Lat. $75^{\circ} 25'$. Long. $60^{\circ} 36'$. Var. 87° W.

channel in which we were, we returned towards the south, with the hope of meeting with better success in a channel nearer the land; before, however, we had succeeded in retracing our way, the ice had closed in upon and beset us.

Having now passed all the whalers, except the *Dexterity* of Leith, I thought it best to provide against the chance of our parting company; and having therefore made up my dispatches to this day, I sent them on board that vessel.

We were now arrived at a point, between which and Cape Dudley Digges, land had not been seen by former navigators.

The shore, between latitude $75^{\circ} 12'$ and 76° , formed a spacious bay; in the midst of which rose a remarkable spiral rock. This I named Melville's Monument, from gratitude to the late lamented Viscount, from whom I received my first commission in His Majesty's navy. To the bay itself I gave the name of Melville's Bay, from respect to the present First Lord of the Admiralty. It is situated between lat. $75^{\circ} 12'$

July 26. Lat. $75^{\circ} 35'$. Long. $60^{\circ} 30'$. Var. 87° W.

and $76^{\circ} 0'$, and abounds with whales, many of which were taken by the ships which were persevering enough to follow us.

Some small islands were discovered this morning in shore ; and a party of men and officers was sent to examine them. They were obliged to traverse the ice by a very circuitous route, and after exploring them returned safely, with several specimens of their natural productions, which are described in the Appendix among the other products of the voyage in this department of science. A little to the south of these, and nearer the land, four other islands were discovered, to which I gave the name of Browne's Islands, from Henry Browne, Esq., who had interested himself much in the expedition, and to whose advice on various subjects we were much indebted.

On Sunday the 26th, we were immovably beset by ice ; the Dexterity now alone continuing in sight. Divine service was performed, and a sermon, as usual, read to the ship's company.

On Monday the sun was completely ob-

July 28. Lat. $75^{\circ} 28'$. Long. $60^{\circ} 36'$ Var. $88^{\circ} 25'$ W.

scured, notwithstanding which, the thermometer stood at 55° . As the *Alexander* was lying in a small pool, I thought it a good opportunity to make some experiments on the deviation of her compasses; for which purpose, taking those of the *Isabella*, I went on board, and had a most satisfactory set of observations, which will be found recorded in the Appendix, in the paper allotted to that object.

The ice still continued to beset us, and as it was found to be pressing harder, it was deemed advisable to cut docks in it for safety.

On the following day the weather remained the same, the ice becoming still closer. The dock in which the *Alexander* had taken shelter, not having been cut sufficiently deep to screen her hull completely, she received several smart shocks, but fortunately experienced no damage. We found soundings in three hundred and fourteen fathoms, bringing up mud and stones. The temperature of the mud was 32° , and of the water at the surface 34° .

July 22. Lat. $75^{\circ} 25'$. Long. $60^{\circ} 36'$. Temp. $54^{\circ} 25'$ W.

Early the next morning the wind increased from the northward, and the ice beginning to move, I finished my letters, and sent them to the *Dexterity*, that we might take advantage of a channel of clear water that was seen leading to the north-west from our position.

Melville's Monument now appeared in the centre of the bay, and an island was discovered a little further north, which, being first seen by Mr. Thom, purser of the *Isabella*, I named it after him. Very high mountains of land and ice were seen to the north side of Melville's Bay, forming an impassable barrier; the precipices next the sea being from one thousand to two thousand feet high, often clear of snow, and exhibiting heaps of ruins accumulated in vast fragments at their bases.

Two officers were here sent on the ice to make observations, and they determined the latitude to be $75^{\circ} 28' 20''$, and the longitude $60^{\circ} 36''$, by the chronometers. A thick fog then coming on, we were obliged to fire muskets for the purpose of keeping

July 30. Lat. $75^{\circ} 28'$. Long. $60^{\circ} 38'$. Var. $88^{\circ} 53'$ W.

company ; by which means both the ships continued beating together between the land and sea ice, which had separated and presented a clear channel to the northward.

In the morning of the 30th the fog cleared away, and a calm ensuing, all hands were busied in towing the ships along. Every advantage, in the mean time, was taken of the light breezes that occasionally sprung up, and the water appearing to be most open near the shore, we bore up a little and stood towards it. Five whalers were in sight to the southward, and we met with many whales. Land also was in sight from N. W. by W. to S. E., and we had no reason whatever to doubt that the coast was here continuous, although it has been imagined that this land was merely a range of islands through which passages exist.

Thick weather came on at midnight and continued till six in the morning, when the fogs cleared away and enabled us to discover a narrow channel between the land and the sea-ice. We tracked the ships to

July 31. Lat. 75° 33'. Long. 61° 24'.

its edge, and then warped along with the sails clewed up. At noon we had a light air of wind, and set all sail, steering along the land as near as the ice would permit; we then sounded in four hundred fathoms, Thom's island bearing east three miles. The deep-sea clamm, which was used for this purpose, brought up some soft mud, with a stone in it, by which a satisfactory proof of its utility in determining the nature of the bottom with much greater accuracy than was ever before attainable, was given.

It being calm, I sent a boat after a whale, which appeared to be particularly marked, being black and white: he was soon harpooned by the Isabella's boat; the first harpoon striking him on the back a little behind the left fin, and at first appearing to be effectual. The boat was then carried to the edge of the ice, and several lines veered away, but, after holding a long time, it was perceived that he had escaped; he soon however appeared, about a mile and a half distant, with the harpoon in his

July 31. Lat. 75° 35'. Long. 61° 22'. Var. 89° W.

back, being then a "loose fish." As he remained near the surface, and appeared to suffer from the wound, the young officers of both ships, who each commanded boats, pulled with emulation to the spot where each expected him to rise, waiting for the moment of his appearance with anxiety. Fortune favoured Mr. James Ross, the animal rising nearest to his boat, and giving his harpooner an opportunity of infixing his weapon, following it by a third and fourth, which made the capture certain. He was now much exhausted, and obliged to remain near the surface, thereby exposing himself to the lancers; the blood, at intervals, flowing from his wounds, and being thrown up in volumes as he rose to breathe. At length, becoming exhausted, he had only strength to make a last but terrible struggle. The people in the boats, aware of their danger, retreated, leaving him to spend his fury on the water, where he was seen rolling and writhing in dreadful agony, lashing the sea from side to side with his tail and fins, till he expired; he then sunk,

July 31. Lat. 75° 25'. Long. 61° 25'. Var. 25° W.

remaining suspended by the lines of the harpooners, who weighed him to the surface, and towed him on board in triumph. We at first took him in tow and attempted to proceed, but the weather being foggy and calm, little progress was made. We therefore made fast to a floe and commenced the process of flinching, the term applied to stripping the whale of his blubber. The tail being cut off and hoisted up to the stern, the fish was fastened alongside by the rump and head: two parallel incisions were then made two feet asunder, in a transverse direction from the back to the belly, and at the latter (which was next the ship), a longitudinal cut was made joining the two ends of the first incisions. Thus this part was formed into a flap, through which a hole was made large enough to admit the strap of the main tackle, which was fixed into it and hauled tight; the use of this being to turn the body of the fish as the flinching advanced. The blubber was first removed from the surface, being cut into quadrilateral pieces,

July 31. Lat. 75° 33'. Long. 61° 22'. Var. 89° W.

to which tackles were applied, by means of which it was easily torn off and hoisted in. The body was then turned by the main tackle attached to the flap or canting piece, until another surface was exposed; and the whole being taken on board, together with the whalebone and the jaw-bones, the remains were turned adrift to be devoured by the birds, being termed Krang by the sailors, and smelling intolerably, owing to the effluvia from the intestines, which were pierced by the lances. We took on board nine tons of blubber, and sent four to the *Alexander*, intending to use it for light and fuel, if obliged to winter in the ice. The *Bon Accord*, of Aberdeen, which was nine or ten miles to the south, sent her boats to this pool, which was full of whales, and killed five in the course of the day. A light breeze springing up in the evening, I gave up my intention of examining the body of the whale; we therefore loosed from the ice, made sail, sent our letters by the *Bon Accord's* boat, and parted with three cheers.

CHAP. V.

CONTINUATION OF THE PROGRESS THROUGH THE ICE.
— IMMINENT PERIL OF THE SHIP. — DISCOVERY OF
AN UNKNOWN TRIBE OF ESKIMAUX. — INTERCOURSE
WITH THE NATIVES.

ON the morning of the 1st of August we had light airs and calms, and were employed working to the north in a narrow channel. Considerable progress was made, and, after Divine service, good observations were obtained on the ice, where we were stopped.

The next morning being calm, we discovered a small opening covered with new-formed ice, called by the seamen *bay-ice*. The land opposite to us bore east, and presented a long continued glacier near the sea. At the distance of six leagues the shore jutted out into black and sharp promontories, the main body of ice appearing

Aug. 4. Lat. $75^{\circ} 58' 56''$. Long. $64^{\circ} 37' 21''$. Var. $91^{\circ} 18' W$.

to be continued from the interior into the sea, and terminating in steep perpendicular cliffs, from which many icebergs appeared to have been separated at no distant period. The ice around us was full of bays and inlets, in which were myriads of that species of sea-fowl known by the name of the little auk, swimming on the water, together with a vast number of whales and sea-unicorns.

In the morning the seamen were sent to track the ship, first along a floe, then on the land-ice; the bay-ice was so strong, that it became necessary to break it, by suspending a boat from the jib-boom; this, being constantly rolled by two seamen, raised a wave a-head of the ship, which effected this purpose; thus gradually making way for her advance. About noon the breeze freshened considerably; we made all sail, and, in one tack, fetched into a channel leading along the land, which now took a W. N. W. direction; in the evening it continued to freshen, carrying us on at the rate

Aug. 4. Lat. $75^{\circ} 58' 55''$. Long. $64^{\circ} 37' 21''$. Var. $91^{\circ} 18' W$.

of five or six miles an hour, a velocity which we had not experienced for several months.

A very high snowy mountain seemed to form the summit of this immense barrier of ice, which led to a lofty promontory; a little to the north of which, but projecting considerably, was a cape, which I named Cape Melville, terminating the bay of that name formerly described. Mr. Skene, officer of the watch, discovered three small islands, which I therefore named after him; they were at some distance from the Cape, and were clear of snow. At ten, having rounded the Cape, we were stopped by ice, and made fast to a floe, having Cape Melville to the S. E., and land, apparently forming a cape, to the N. W. This was taken by some of the officers for Cape Dudley Digges; we found the depth of water two hundred and fifty fathoms, and the ice appeared to drift to the westward, apparently from the influence of the wind. Here we replenished our water from a pond in the ice. At eleven we got under sail, and proceeded southward.

Aug. 5. Lat. $75^{\circ} 50'$. Long. $64^{\circ} 41'$. Var. $90^{\circ} 18' W.$

westward, that we might avoid the floes which were drifting upon us; and, having continued sailing all the day, at midnight we moored to the ice, to which we remained attached until four in the morning, when we were compelled to cast off, in order to escape from an iceberg which we saw bearing directly down upon us. The awks were exceedingly abundant at this time also, and many were shot for food; as was also a large gull, two feet five inches in length, which, when killed, disgorged one of these birds entire.

The land which had been taken for Cape Dudley Digges now appeared to be an island, and Lieutenant Parry conjectured it was the Wolstenholme Island of Baffin; but, the latitude not agreeing, I thought otherwise. It will be seen hereafter that this island had not before been seen. Not less than two hundred awks were shot this day, and served out to the ships' companies, among whose victuals they proved an agreeable variety, not having the fishy flavour that might be expected from their

August 6. Lat. $75^{\circ} 50' 30''$. Long. $64^{\circ} 47'$. Var. $91^{\circ} 32' W$.

food, which consists of the small shrimps found so plentifully in this quarter.

On the following day, while standing off and on, we had good observations. At half-past two, a small opening was seen, which, together with the motion of the ice, giving us hopes of forcing a passage, I determined to attempt it; and the weather proving fine, the ships were tracked with great labour through about a mile of bay-ice to the narrowest part of a ~~flue~~ which obstructed our passage into a ~~pool~~ ~~a-head~~; the usual resort was had to ~~towing~~, but our labours were soon suspended by the discovery of a passage a little to the eastward. To this, therefore, we warped the ships through the loose and bay-ice, and thus managed to proceed about a mile further. Here we obtained good observations and the bearings of the land.

As it appeared likely that our people would be at work throughout the night, an extra allowance of provisions was served out; their labours were incessant till half-past one, when, being almost worn out

August 7. Lat. 75° 52'. Long. 64° 42'.

with exertion, I allowed them to rest till five. At half-past six the ice began to move, and the wind increasing to a gale, the only chance left for us was to endeavour to force the ship through it to the north, where it partially opened ; but the channel was so much obstructed by heavy fragments, that our utmost efforts were ineffectual ; the field closed in upon us, and, at noon, we felt its pressure most severely. A large floe which lay on one side of the *Isabella* appeared to be fixed, while, on the other side, another of considerable bulk was passing along with a rapid motion, assuming a somewhat circular direction, in consequence of one side having struck on the fixed field. The pressure continuing to increase, it became doubtful whether the ship would be able to sustain it ; every support threatened to give way ; the beams in the hold began to bend ; and the iron tanks settled together. At this critical moment, when it seemed impossible for us to bear the accumulating pressure much longer, the hull rose several feet ; while the ice, which was

August 7. Lat. 75° 35'. Long. 64° 43'.

more than six feet thick, broke against the sides, curling back on itself. The great stress now fell upon our bow, and, after being again lifted up, we were carried with great violence towards the *Alexander*, which had hitherto been, in a great measure, defended by the *Isabella*. Every effort to avoid their getting foul of each other failed; the ice-anchors and cables broke one after another, and the sterns of the two ships came so violently into contact, as to crush to pieces a boat that could not be removed in time. The collision was tremendous, the anchors and chain-plates being broken, and nothing less than the loss of the masts expected: but, at this eventful instant, by the interposition of Providence, the force of the ice seemed exhausted; the two fields suddenly receded, and we passed the *Alexander* with comparatively little damage. The last things that hooked each other were the two bower anchors, which, being torn from the bows, remained suspended in a line between the

August 7. Lat. 75° 52'. Long. 64° 42'.

two ships, until that of the *Alexander* gave way.

A clear channel soon after opened, and we ran into a pool, thus escaping the immediate danger ; but the fall of snow being very heavy, our situation still remained doubtful, nor could we conjecture whether we were even yet in a place of safety.

Neither the masters, the mates, nor those men who had been all their lives in the Greenland service, had ever experienced such imminent peril ; and they declared, that a common whaler must have been crushed to atoms. Our safety must, indeed, be attributed to the perfect and admirable manner in which the vessels had been strengthened when fitting for service. As we had apprehended, our troubles were, indeed, not yet at an end ; for, as the gale increased, the ice began to move with greater velocity, while the continued thick fall of snow kept from our sight the further danger that awaited us, till it became imminent. A large field of ice was soon dis-

covered in a small distance, leaving us down upon it from the west, and it was because necessary in our march in things in which service all hands were immediately employed; it was, however, found to be for our largest ship, and in progress could be made. This circumstance proved unfortunate, for it was soon after perceived, that the field, to which we were directed for the purpose, was drifting rapidly in a line of icebergs which lay around: the icebergs were therefore close-reeled, in order that we might run, as a last resource, between two bergs, or into any creek that might be found among them; when suddenly the field acquired a circular motion, so that every exertion was now necessary for the purpose of warping along the edge, that being the sole chance we had of escaping the danger of being crushed on an iceberg. In a few minutes we observed that a part of the field, into which we had attempted to cut our docks, come in contact with the berg, with such rapidity and violence, as to rise more than fifty feet up its precipitous

August 8. Lat. $75^{\circ} 54'$. Long. $65^{\circ} 32'$. Var. $92^{\circ} 44'$ W.

side, where it suddenly broke, the elevated part falling back on the rest with a terrible crash, and overwhelming with its ruins the very spot we had previously chosen for our safety. Soon afterwards the ice appeared sufficiently open for us to pass the reef of bergs, and we once more found ourselves in a place of security.

During the whole of this eventful day, every officer and man on board both ships was alike employed; their zeal and activity under the severest fatigues, could only be equalled by their patience and fortitude, and they fully justified the opinion I had previously formed respecting their conduct in the hour of danger.

It cleared away soon after, and we saw the land; and in a short time made fast to the land-ice, which, uniting with the icebergs, formed a spacious and secure bay. Extra allowances of preserved meat and grog having been served out to the sailors, all the spare hands were employed in repairing our damages, which were not very

August 8. Lat. $75^{\circ} 54'$. Long. $65^{\circ} 32'$. Var. $92^{\circ} 44'$ W.

considerable ; but the re-placing the Alexander's chain-plates was a tedious work.

During this interval, a party of officers was sent to examine the nearest shore, which appeared six miles distant ; it was ascertained to be an island by Mr. Bushnan, and I accordingly gave it his name. They found it utterly desolate, but some piles of stone, resembling in their appearance and arrangement the usual graves of the Eskimaux, showed that it had been inhabited ; a small piece of the stem of a heath-bush was also found, and being burned at one end, was recognised, by Sacheuse, to be the instrument by which these people trim their lamps. Very little vegetation was found, but a few specimens of the *papaver nudicaulis*, a *ranunculus*, and two or three specimens of a short grass, were brought on board.

As soon as our party returned, we prepared for sailing ; and at midnight a light breeze coming from N. N. E., we loosed, and made sail.

The ships had made very little progress,

August 9. Lat. 75° 55'. Long. 65° 32'.

when we were surprised by the appearance of several men on the ice, who were hallooing, as we imagined, to the ships: the first impression was, that they were shipwrecked sailors, probably belonging to some vessel that had followed us, and had been crushed in the late gale; we therefore tacked, hoisted our colours, and stood in for the shore. On approaching the ice, we discovered them to be natives, drawn on rudely-fashioned sledges, by dogs, which they continued to drive backwards and forwards with wonderful rapidity. When we arrived within hail, Sacheuse called out to them, in his own language; some words were heard in return, to which a reply was again made in the Eskimaux; but neither party appeared to be in the least degree intelligible to the other. For some time they continued to regard us in silence, but, on the ships' tacking, they set up a simultaneous shout, accompanied with many strange gesticulations, and went off in their sledges with great velocity towards the land. After they had attained the distance

August 9. Lat. 75° 55'. Long. 65° 32'.

of a mile, or more, they halted for about two hours : as soon as this was observed, the ship was tacked, and a boat sent to place an observation-stool, of four feet in height, on the ice, on which various presents, consisting of knives and articles of clothing, were left. Either, however, they did not see it, or it did not attract their attention, and a second boat was therefore sent, with directions to leave one of the Eskimaux dogs with some strings of blue beads around his neck, near the same place.

It being necessary to examine if there was a passage in this place, we took the opportunity of their absence to stand towards the head of the pool, which was about four miles off, trusting that, in the mean time, they would return to the same spot, to which it was also our intention to come back, after examining into the chances of a passage northwards. No opening was, however, found ; and we therefore returned, after an absence of ten hours. The dog was found sleeping on the spot where we left him, the presents remaining untouched.

August 9. Lat. $75^{\circ} 55'$. Long. $65^{\circ} 32'$.

A single sledge was shortly after observed at a great distance, but it immediately drove off with great rapidity.

Being extremely anxious to communicate with the natives, I caused a pole to be prepared, on which a flag was fixed with a representation of the sun and moon painted over a hand holding a sprig of heath (the only shrub seen on the shore). This pole being carried to an iceberg, midway between the ships and the shore, was there erected, and a bag containing presents, with a device of a hand pointing to a ship, painted on it, was fastened to the pole within reach, and left there; the ships, in the mean time, being moored in a convenient situation for observing what might take place.

The gale had now entirely subsided, the weather became beautiful, and the water calm; circumstances that necessarily detained us in our present situation, which, notwithstanding the imperious nature of our orders to proceed with all possible dispatch, we should have been unwilling to

August 10. Lat. $75^{\circ} 55'$. Long. $65^{\circ} 32'$.

leave, while any chance of a communication with a people, hitherto unknown, remained.

Myriads of the awks surrounded us, and afforded some sport, while they proved no less a treat to the people.

August 10.—About ten o'clock this day, we were rejoiced to see eight sledges, driven by the natives, advancing by a circuitous route towards the place where we lay: they halted about a mile from us, and the people alighting, ascended a small iceberg, as if to reconnoitre. After remaining apparently in consultation for nearly half an hour, four of them descended, and came towards the flag-staff, which, however, they did not venture to approach. In the meantime a white flag was hoisted at the main in each ship, and John Sacheuse dispatched, bearing a small white flag, with some presents, that he might endeavour, if possible, to bring them to a parley. This was a service which he had most cheerfully volunteered, requesting leave to go unattended and unarmed, a request to which no objection could be made, as the place chosen for

August 10. Lat. $75^{\circ} 55'$. Long. $65^{\circ} 32'$.

the meeting was within half a mile of the *Isabella*. It was equally advantageous to the natives, a canal, or small chasm in the ice, not passable without a plank, separating the parties from each other, and preventing any possibility of an attack from these people, unless by darts.

In executing this service, *Sacheuse* displayed no less address than courage. Having placed his flag at some distance from the canal, he advanced to the edge, and, taking off his hat, made friendly signs for those opposite to approach, as he did: this they partly complied with, halting at a distance of three hundred yards, where they got out of their sledges, and set up a loud simultaneous halloo, which *Sacheuse* answered by imitating it. They then ventured to approach a little nearer, having nothing in their hands but the whips with which they guide their dogs; and, after satisfying themselves that the canal was impassable, one of them in particular seemed to acquire confidence. Shouts, words, and gestures, were exchanged for some time

August 21. Lat. 5° 25' N. Long. 82° 15' W.

to no purpose, though each party seemed in some degree to recognize each other's language. Sachenee, after a time, thought he could discover that they spoke the Timooke dialect, drawing out their words, however, to an unusual length. He immediately adopted that dialect, and holding up the porcupine, called out in their Kabkite, "Come in." To which they answered, Natchi. *Wachonah-pach.* "No—go away;" and other words which he made out to mean, that they would or were not come to destroy them. He then then approached to the edge of the camp and drawing from his bow a single feathered, "Go away;" "I am all you" to choose, but immediately the two men also a man and a horse, and at the same time, three across the camp were struck by beads and a request sent. We then they beheld with great surprise and astonishment, still calling, "Go away. Go away." Sachenee then threw them in Jagonia and saying, "Take that." On this they approached with cautious steps to the shore.

August 10. Lat. 75° 55'. Long. 65° 32'.

then shouted and pulled their noses ; these actions were imitated by Sacheuse, who, in return, called out, "*Heigh, yaw !*" pulling his nose with the same gesture. They now pointed to the shirt, demanding what it was, and when told it was an article of clothing, asked of what skin it was made. Sacheuse replied, it was made of the hair of an animal which they had never seen ; on which they picked it up with expressions of surprise. They now began to ask many questions ; for, by this time, they found the language spoken by themselves and Sacheuse, had sufficient resemblance to enable them to hold some communication.

They first pointed to the ships, eagerly asking, "What great creatures those were?" "Do they come from the sun or the moon?" "Do they give us light by night or by day?" Sacheuse told them that he was a man, that he had a father and mother like themselves ; and, pointing to the south, said that he came from a distant country in that direction. To this they answered, "That cannot be, there is nothing but ice

August 10. Lat. $75^{\circ} 55'$. Long. $65^{\circ} 32'$.

there." They again asked, "What creatures these were?" pointing to the ships; to which Sacheuse replied, that "they were houses made of wood." This they seemed still to discredit, answering, "No, they are alive, we have seen them move their wings." Sacheuse now enquired of them what they themselves were; to which they replied, they were men, and lived in that direction, pointing to the north; that there was much water there; and that they had come here to fish for sea-unicorns. It was then agreed, that he should pass the chasm to them, and he accordingly returned to the ship to make his report, and to ask for a plank.

During the whole of this conversation I had been employed, with a good telescope, in observing their motions; and beheld the first man approach with every mark of fear and distrust, looking frequently behind to the other two, and beckoning them to come on, as if for support. They occasionally retreated, then advanced again, with cautious steps, in the attitude

August 10. Lat. 75° 55'. Long. 65° 32'.

of listening, generally keeping one hand down by their knees, in readiness to pull out a knife which they had in their boots; in the other hand they held their whips with the lash coiled up; their sledges remained at a little distance, and the fourth man being apparently stationed to keep them in readiness for escape. Sometimes they drew back the covering they had on their heads, as if wishing to catch the most distant sounds; at which time I could discern their features, displaying extreme terror and amazement, while every limb appeared to tremble as they moved. Sacheuse was directed to entice them to the ship, and two men were now sent with a plank, which was accordingly placed across the chasm. They appeared still much alarmed, and requested that he only should come over; he accordingly passed to the opposite side, on which they earnestly besought him not to touch them, as if he did, they should certainly die. After he had used many arguments to persuade them that he was flesh and blood, the native who had shown

August 10. Lat. 75° 55'. Long. 65° 32'. Var.

most courage, ventured to touch his hand ; then pulling himself by the nose, set up a shout, in which he was joined by Sacheuse and the other three. The presents were then distributed, consisting of two or three articles of clothing, and a few strings of beads ; after which Sacheuse exchanged a knife for one of theirs.

The hope of getting some important information, as well as the interest naturally felt for these poor creatures, made me impatient to communicate with them myself ; and I therefore desired Lieutenant Parry to accompany me to the place where the party were assembled, it appearing to me that Sacheuse had failed in persuading them to come nearer the ships. We accordingly provided ourselves with additional presents, consisting of looking-glasses and knives, together with some caps and shirts, and proceeded towards the spot, where the conference was held with increased energy. By the time we reached it the whole were assembled ; those, who had originally been left at a distance with

August 10. Lat. 75° 55'. Long. 65° 32'.

their sledges, having driven up to join their comrades. The party now, therefore, consisted of eight natives, with all their sledges, and about fifty dogs, two sailors, Sacheuse, Lieutenant Parry and myself; forming a groupe of no small singularity; not a little also increased by the peculiarity of the situation, on a field of ice, far from the land. The noise and clamour may easily be conceived, the whole talking and shouting together, and the dogs howling, while the natives were flogging them with their long whips to preserve order.

Our arrival produced a visible alarm, causing them to retreat a few steps towards their sledges; on this Sacheuse called to us to pull our noses, as he had discovered this to be the mode of friendly salutation with them. This ceremony was accordingly performed by each of us, the natives; during their retreat, making use of the same gesture, the nature of which we had not before understood. In the same way we imitated their shouts as well as we could, using the same interjection, *Heigh, yaw!*

August 10. Lat. 75° 55'. Long. 65° 38'.

which we afterwards found to be an expression of surprise and pleasure. We then advanced towards them, while they halted, and presented the foremost with a looking-glass and a knife, repeating the same presents to the whole, as they came up in succession. On seeing their faces in the glasses, their astonishment appeared extreme, and they looked round in silence, for a moment, at each other and at us; immediately afterwards they set up a general shout, succeeded by a loud laugh, expressive of extreme delight, as well as surprise, in which we joined, partly from inability to avoid it, and willing also to show that we were pleased with our new acquaintances.

The impression made by this ludicrous scene on Sacheuse was so strong, that he afterwards made a drawing of it, being the first specimen we had witnessed of his talents for historical composition; his practice in the art of design, which he had cultivated, in addition to all the other branches of knowledge engrafted on his Eskimaux

August 10. Lat. 75° 55'. Long. 65° 32'.

education, having hitherto been limited to copying such prints of single figures, or ships, as he could procure. This production, in all its parts, was sufficiently remarkable to excite our admiration of the quickness of his conception, and the faithfulness of his memory in this art, of which with a very limited share of practice or instruction, he had acquired a knowledge, which for him, must be viewed as considerable.

Having now at length acquired confidence they advanced, offering, in return for our knives, glasses, and beads, their knives, sea-unicorns' horns, and sea-horse teeth, which were accepted. They were then instructed by Sacheuse to uncover their heads, as a mark of good will and respect to us; and with this ceremony, which they performed immediately, and of which they appeared to comprehend the meaning, our friendship became established.

One of them having enquired what was the use of a red cap, which I had given him, Sacheuse placed it on his head, to the great amusement of the rest, each of whom put

August 10. Lat. 75° 55'. Long. 65° 32'.

it on in his turn. The colour of our skins became next a subject of much mirth, as also the ornaments on the frames of the looking-glasses. The eldest of them, who was also the one that acted as leader, addressing himself to me, now made a long speech, which being ended, he appeared to wait for a reply. I made signs that I did not understand him, and called for Sacheuse to interpret. He thus perceived that we used different languages, at which his astonishment appeared extreme, and he expressed it by a loud *Heigh, yaw!* As Sacheuse's attempt to procure the meaning of this oration, seemed likely to fail, and as we were anxious to get them to the ship as soon as possible, I desired him to persuade them to accompany us. They accordingly consented; on which their dogs were unharnessed and fastened to the ice, and two of the sledges were drawn along the plank to the other side of the chasm; three of the natives being left in charge of the dogs and the remaining sledges; the other five followed us, laughing heartily

August 10. Lat. 75° 55'. Long. 65° 32'.

at seeing Lieutenant Parry and myself drawn towards the ship, on the sledges, by our seamen. One of them, by keeping close to me, got before his companions, and thus we proceeded together till we arrived within a hundred yards of the ship, where he stopped. I attempted to urge him on, but in vain; his evident terror preventing him from advancing another step till his companions came up. It was apparent that he still believed the vessel to be a living creature, as he stopped to contemplate her, looking up at the masts, and examining every part with marks of the greatest fear and astonishment; he then addressed her, crying out in words perfectly intelligible to Sacheuse, and in a loud tone — “ Who
“ are you? what are you? where do you
“ come from? is it from the sun or the
“ moon?” pausing between every question, and pulling his nose with the utmost solemnity. The rest now came up in succession, each showing similar surprise, and making use of the same expressions, accompanied by the same extraordinary cere-

August 10. Lat. 75° 55'. Long. 65° 37'.

mony. Sacheuse now laboured to assure them, that the ship was only a wooden house, and pointed out the boat, which had been hauled on the ice to repair; explaining to them that it was a smaller one of the same kind. This immediately arrested their attention, they advanced to the boat, examined her, as well as the carpenter's tools and the oars, very minutely; each object, in its turn, exciting the most ludicrous ejaculations of surprise; we then ordered the boat to be launched into the sea, with a man in it, and hauled up again, at the sight of which they set no bounds to their clamour. The ice anchor, a heavy piece of iron shaped like the letter S, and the cable, excited much interest; the former they tried in vain to remove, and they eagerly enquired of what skins the latter was made.

By this time the officers of both ships had surrounded them, while the bow of the *Isabella*, which was close to the ice, was crowded with the crew; and, certainly, a more ludicrous, yet interesting, scene was

August 10. Lat. 75° 55'. Long. 65° 32'.

never beheld, than that which took place whilst they were viewing the ship; nor is it possible to convey to the imagination any thing like a just representation of the wild amazement, joy, and fear, which successively pervaded the countenances, and governed the gestures, of these creatures, who gave full vent to their feelings; and, I am sure, it was a gratifying scene, which never can be forgotten by those who witnessed and enjoyed it.

Their shouts, halloos, and laughter were heartily joined in, and imitated by all hands, as well as the ceremony of nose-pulling, which could not fail to increase our mirth on the occasion. That which most of all excited their admiration, was the circumstance of a sailor going aloft, and they kept their eyes on him till he reached the summit of the mast: the sails which hung loose, they naturally supposed were skins.

Their attention being again called to the boat, where the carpenter's hammer and nails still remained, they were shown the

August 10. Lat. $75^{\circ} 55'$. Long. $65^{\circ} 32'$.

use of these articles, and no sooner were they aware of their purposes than they showed a desire to possess them, and were accordingly presented with some nails. They now accompanied us to that part of the bow from which a rope-ladder was suspended, and the mode of mounting it was shown them, but it was a considerable time ere we could prevail on them to ascend it: at length the senior of them, who always led the way, went up, and was followed by the rest. The new wonders that now surrounded them on every side caused fresh astonishment, which, after a moment's suspense, always terminated in loud and hearty laughter. The most frequent ejaculation of surprise was *Heigh, yaw!* and when particularly excited by any more remarkable object than the rest, they pronounced the first syllable of the interjection many times with peculiar rapidity and emphasis, extending wide their arms, and looking at each other at the end of the exclamation with open mouths, as if in breathless consternation.

August 10. Lat. 75° 55'. Long. 65° 32'.

from the nature of the materials only, as they seemed to form no idea of their uses.

They were now conducted to the gun-room, and afterwards round the ship, but without appearing to distinguish any thing particularly, except the wood, in her construction, stamping on the deck, as if in evident surprise at the quantity of the valuable material. In hopes of amusing them, the violin was then sent for, and some tunes were played; they, however, paid no attention to this, seeming quite unconcerned either about the sounds or the performer; a sufficient proof that the love of music is an acquired taste, and that it requires experience to distinguish between that and other similar noises. A flute was afterwards sounded for them, which seemed to exact somewhat more attention, probably from its resembling more nearly in shape the objects to which they were accustomed; one of them put it to his mouth and blew on it, but immediately threw it away.

On returning to the cabin, some biscuit

August 10. Lat. $75^{\circ} 55'$. Long. $65^{\circ} 32'$.

was produced, and a piece eaten by Sacheuse before presenting it to them: one of them then took a piece also into his mouth, but almost immediately spat it out with apparent disgust. Some salt meat, that was afterwards offered, produced the same effect. We now also ascertained their names, that of the eldest being Ervick, and that of the two others, who were his brother's sons, Marshuick and Otooniah. Some jugglers' tricks were afterwards exhibited by Mr. Beverley, which seemed to disconcert them, as they became uneasy, and expressed a wish to go on deck. We accordingly accompanied them, and, by pointing to the pieces of ice that were alongside, attempted to discover to what extent they could count, for the purpose of ascertaining the numbers of their tribe. We found, however, they could only reckon to ten; and on enquiring, therefore, if their country possessed as many inhabitants as there were pieces of ice, they replied, "Many more:" a thousand fragments were, perhaps, then floating round the ship.

August 10. Lat. 75° 55'. Long. 65° 32'.

was the effect produced upon them by seeing their faces in a magnifying mirror: their grimaces were highly entertaining, while, like monkees, they looked first into it, and then behind it, in hopes of finding the monster which was exaggerating their hideous gestures. A watch was also held to the ear of one, who supposing it alive, asked if it was good to eat. On being shown the glass of the sky-light and binnacle, they touched it, and desired to know what kind of ice it was. During this scene one of them wandered to the main hatchway, and stooping down, saw the serjeant of marines, whose red coat produced a loud exclamation of wonder, while his own attitude and figure did not less excite the surprise of our tars, who for the first time discovered some unexpected peculiarities in the dress of the natives.

The three men remaining were now handed down to my cabin, and shown the use of the chairs, which they did not comprehend, appearing to have no notion of any other seat than the ground. Being

August 10. Lat. 75° 55'. Long. 65° 32'.

seated, we attempted to take their portraits, in which Lieutenant Hopner, Mr. Skene, Mr. Bushnan, and myself, were at the same time employed. During this attempt, fearful it might alarm them, we amused them with questions, collecting from them at the same time the information we thought it desirable to obtain, and directing Sacheuse to ask those questions which the hurried nature of this visit permitted us to recollect as most essential, and of which the result will appear hereafter. Our drawings being completed, and interrogatories ended, they began to be very inquisitive, asking the use of every thing in the cabin. We showed them papers, books, drawings, and various mathematical instruments, which produced only the usual effect of astonishing them; but on being shown the prints in Cook's voyage of the natives of Otaheite, they attempted to grasp them, evidently comprehending that they were the representations of human beings. The sight of a writing-desk, a bureau, and of other wooden furniture, also excited their astonishment, but apparently

CHAP. VI.

THE SHIPS OBLIGED TO LEAVE THEIR MOORINGS. —
FURTHER COMMUNICATION WITH THE NATIVES. —
DISCOVERY OF PRINCE REGENT'S BAY. — AND DEPARTURE FROM IT.

Aug. 11. THE drifting of the ice this morning apprised us of an approaching southerly breeze, and made our situation no longer tenable; we were, therefore, obliged to cast loose, and, after passing through several narrow channels and much loose ice, we advanced seven miles further to the westward, and fortunately found a place of safety under the lee of a very large iceberg, which lay aground in one hundred and fifty fathoms. No sooner were both ships fast, than an immense floe of ice, with two small bergs in it, came into contact with the large berg, the corner of which was raised several feet; a huge piece of the precipice was struck off by the concussion, and fell with a dreadful crash, breaking the ice below it;

August 11. Lat. $75^{\circ} 55'$. Long. $65^{\circ} 32'$. Var. $65\frac{1}{2}^{\circ}$ W.

and raising a wave that rent the floe in pieces for several hundred yards, and made the ships roll considerably.

The ice then took a circular motion, and completely closed the spot which we had left but a few minutes before. It continued to drift during the whole day, and a heavy fall of snow coming on, the land could not be seen: the weather, however, began to clear at midnight, and a bottle, containing an account of our proceedings, was here left on the floating ice.

During this day we made some attempts to discover from Sacheue what further particulars he had learned respecting the natives; the hurry of the preceding having prevented us from conversing so fully with him as we could have wished. Among other less important particulars, we found that they had sent their women and children to the mountains, and that their original intention of coming to the ships was, to request us to go away, and not to destroy them: they also informed him, that they had watched for some time, to see whether

August 13. Lat. $75^{\circ} 54'$. Long. $65^{\circ} 32'$. Var. 66° W.

mainder of which we had both rain and snow, with the appearance of unsettled weather. Two or three natives were seen at a great distance, but none ventured near the ship. We sounded here in one hundred and fifty fathoms, and tried the temperature of the water at various depths, by the self-registering thermometer.

August 13.—On the following morning, light airs to the eastward, and a rapid disappearance of the ice, raised our hopes of proceeding. Early in the forenoon a passage opened along the land ice, and the wind backing to the south, we trusted to find a better place of shelter further on. The berg by which we had been protected having separated in several pieces, we cast off and made sail, but having proceeded ten miles to the westward, were stopped by a barrier of large floes and bergs, which seemed to extend from the land to the main ice: the icebergs appearing to be aground, and very near to each other. To the northward of them some clear water was to be seen from the mast-head, and it

August 13. Lat. $75^{\circ} 54'$. Long. $45^{\circ} 32'$.

appeared to me that the land was trending to the north. Our First Lieutenant and Master saw land from the mast-head, bearing true W. S. W. The atmosphere was extremely clear, and all distant objects seemed wonderfully raised by refraction. The sun passing in azimuth, served to delineate them on the horizon in a distinct and beautiful manner; the reflections of light on the icebergs were peculiarly splendid, bright green, blue, and orange, being the prevailing colours. It was afterwards ascertained, that the land seen by these officers, as well as by several seamen, from the mast-head, must have been at the immense distance of one hundred and forty miles. The ice was now closing in upon us, the weather had every appearance of a gale, and we lost no time in seeking a place of shelter, which we were fortunate enough to find close to an iceberg, that was firmly secured to the land ice. In this there was a small bay, in which we were made fast, and were very soon beset, as we expected.

During the three last days we had seen a

August 13. Lat. 75° 54'. Long. 65° 53'.

vast number of whales, which sometimes came up alongside of the ship to respire, and did not seem at all alarmed; we saw also some sea-unicorns; and in the mornings and evenings the pools of water were literally swarming with awks, hundreds of which were daily shot.

We had not remained long at our new moorings, before we were gratified by the appearance of three of the natives at a distance. Preparations were accordingly made for continuing our intercourse, if they should prove to be the same that had been with us, or for obtaining a parley, if they should turn out to be strangers.

The flag-staff, as on a former occasion, was, therefore, pitched at some distance from the ships, and the natives were shortly seen to approach it, without much hesitation or alarm. They were observed to take down the bag which was attached to it; but after examining the contents, they restored them to their place, and returned to their sledges. This proceeding, we afterwards understood to originate in supersti-

August 13. Lat. 75° 54'. Long. 65° 53'.

tious fear, and not to arise from any peculiar regard to the rights of property, respecting which on other occasions, they showed the usual feelings of savages. Sacheuse was then furnished with presents, and sent to speak with them. He found immediately, that they were not our old friends, but other natives, who had received from them a good report of us, together with the history of our being people that lived beyond the ice, and that this had prevented any alarm at our appearance.

On receiving this account, I went with Lieutenant Parry to the place of communication, and performed the ceremonies already described, assuring them of our friendship, and inviting them on board.

It being proposed that they should drive close to the ship on their sledges, the eldest got into his sledge, for this purpose, and we had thus an opportunity of witnessing the mode in which he managed his dogs. These were six in number, each having a collar of seal-skin, two inches wide, to which the one end of a thong, made of

August 13. Lat. $75^{\circ} 54'$. Long. $65^{\circ} 53'$.

strong hide, about three yards long, was tied; the other end being fastened to the fore part of the sledge: thus they all stood nearly abreast, each drawing by a single trace, without reins. No sooner did they hear the crack of the whip, than they set off at full speed, while he seemed to manage them with the greatest ease, guiding them partly by his voice, and partly by the sound of the whip. On approaching our sailors, however, they became so terrified, that it was with some difficulty they could be stopped. They were at length fastened to the ice, and one of the younger men, who had come up behind, was left in charge of the whole.

They were much delighted with the presents that were now given to them; but as it appeared that they had seen those which we had given to the first party, their surprise was not to be compared to that which we had already witnessed. In return I received a spear, made of the sea-unicorn's horn, with a sledge, made chiefly of the bones of the seal, tied together with thongs

August 13. Lat. 75° 54'. Long. 65° 53'.

of seal-skin; the runners, or lower pieces, being formed of sea-unicorns' horns. I also purchased from them a dog, but with some difficulty, as they seemed very averse to part with it. I chose the one which appeared to Mr. Parry and me the handsomest. In examining them, we found that three of them had lost each an eye; these, as the natives informed us, having been accidents from the lash of the whip. The dog was bound, and led on by one of the sailors, and an excellent portrait was made of him by Mr. Skene. The animal was, some time afterwards, unfortunately washed overboard in a gale. *

The other two natives now accompanied us to the ship, and were much astonished at every thing they saw; but it was evident that they had been prepared to see wonders by our former visitors, as they were by no means so clamorous.

* The peculiarities of this variety, and the few circumstances in which it differs from the common *Laimaux* dog, will be found in the Appendix.

August 13. Lat. 75° 54'. Long. 65° 53'.

The party consisted of the father, a man about forty years of age, whose name was Meigack, and his two sons: the one who accompanied him, a lad of seventeen, was called Kaweigack: the name of the younger, who remained with the sledge, was not discovered. Meigack was now taken down into the cabin, and informed us that he had a wife, three sons, and a daughter; that, in the summer season, they came from Peto-wack to this place, which was called Ackul-lowissick, to catch seals and sea-unicorns, and to procure iron; and that they returned when the sun left them. He promised to bring his wife to see the ship, but Sacheuse was of opinion that he did not mean to keep his promise, which turned out eventually to be the case. He was now interrogated respecting the iron with which his knife was edged, and he informed us that it was found in the mountain before mentioned; that it was in several large masses, of which one in particular, which was harder than the rest, was a part of the mountain; that the others were in large pieces above ground, and not

August 13. Lat. 75° 54'. Long. 65° 53'.

of so hard a nature ; that they cut it off with a hard stone, and then beat it flat into pieces of the size of a sixpence, but of an oval shape. As the place where this metal was found, which is called Sowallick, was at least twenty-five miles distant, and the weather was very unsettled, I could not venture to send another party to examine it, being uncertain how soon we might be forced from our present situation. I, therefore, offered high rewards, and pressed Meigack to bring us some specimens of it, which he readily promised. His portrait was then taken by Mr. Skene and Mr. Hoppner ; and we obtained, by means of Sachense, much information, which will be detailed hereafter.

They showed the same dislike to bread as the others had done ; and on some spirits and wine being offered to them, they expressed still greater aversion, putting away the glass as soon as it had reached their lips. A wine-glass excited Meigack's curiosity very much ; on which he was immediately presented with one, and when

August 13. Lat. 75° 54'. Long. 65° 53'.

we enquired to what purpose he meant to apply it, he said it was intended for his wife; when he went on deck, he tied it, together with some pieces of iron which had been given him, to the back of his sledge, appearing to have forgotten that he had sold it to me. Before quitting the ship, we explained to his satisfaction, that he had parted with his sledge, and, taking the wine-glass out of the package he had made, explained to him that it was easily broken.

When on deck, as he was about to leave us, he pointed to his house, which was opposite to the ship, about three miles distant, and could be discerned by the telescope: he also informed us that the headland furthest to the north, which was six miles off, was called Inmallick, and that on the other side of it there was a clear sea. Having made both of them presents, consisting of a small harpoon, with some pieces of iron and of wood, I repeated my intreaties that they would bring specimens of their iron; having reason to suspect from their account, that the rocks from which

August 13. Lat. $75^{\circ} 54'$. Long. $65^{\circ} 55'$.

they had procured it were masses of native iron. They promised to return with it when they had eaten and slept, together with more of their countrymen.

It was about three o'clock when they departed, highly pleased, like the former party, with their reception. The ice being covered with small protuberant bergs, we soon lost sight of them as they drove away towards the shore; to gain which, we saw that they were obliged to follow a very circuitous route; we easily perceived that this arose from a number of pools and chasms in the ice, as it was evident that we were only three or four miles from the land in a direct line.

During the whole of this day the weather had a very unsettled appearance, and towards the evening the wind increased to a strong gale, attended with a heavy fall of snow, which, during the night, obscured the land; but, a shower of rain coming on, it cleared away at three o'clock, and a hard frost succeeded; when the land was again discovered. We were soon completely be-

August 14. Lat. $75^{\circ} 54'$. Long. $65^{\circ} 53'$. Var. 66° W.

set with heavy ice, but the iceberg under which we had taken shelter, defended us from its pressure. In order to determine whether or not any current existed here, together with the depth of water, and its temperature at different depths, the necessary experiments were made, and soundings were obtained in four hundred and fifty-five fathoms, by which a quantity of mud was brought up. It is worthy of remark, that here, as on the whole of this coast to the northward of 70° , we found the water deepest when nearest the land, and that no current was observed.

August 14.—The weather continuing clear, we had good azimuths, and several observations on the deviation of the magnetic needle were also made. In the mean time, the boats were sent to procure waterfowl, and they returned with three hundred awks, which were, as usual, served to the ship's company.

At two in the afternoon a party of ten natives were seen approaching the ship on their sledges. I went out to meet them,

August 14. Lat. 75° 54'. Long. 65° 58'.

together with Mr. Parry and Sacheuse, and we were glad to recognise some of our old acquaintances, together with three others whose faces were new to us, namely, Marshuick, Otooniah, Meigack, his two sons, and the man who had stolen the hammer. They now came forward, not only without alarm, but without ceremony; both the pulling of noses and the shaking of hands being dispensed with; and having with them a seal-skin made into a bag, and filled with air, they began to kick it at each other and at us. In this play we heartily joined, to the great amusement of both parties. This foot-ball was the buoy of their harpoon, and we found they had killed a sea-unicorn during the night, about three miles to the south-eastward of the ships; we immediately asked for its horn, to which they replied that it was a female and had none. We now invited them to the ship, and they accompanied us without hesitation. They were, however, no sooner on board, than they proceeded both to beg and to steal, laying hands on every small piece of wood

August 14. Lat. 75° 54'. Long. 65° 53'.

they met with, and pocketing every nail they could find about the ship. I procured from them a sledge of the same description as the former, and a couple of knives. They also gave me a piece of dried sea-unicorn's flesh, which appeared to have been parched, or half-roasted, as it bore the marks of fire. I attempted, in vain, to procure another dog from them, but they could not be persuaded to part with him. We had already seen them eat the dried flesh of the sea-unicorn, and had now an opportunity of discovering that they had no scruple of eating raw flesh in any state. One of them, who had a bag full of awks, took out one in our presence, and devoured it raw; but on being asked if this was a common practice, they informed us that they only ate them in this state when they had no convenience for cookery.

The whole party had now assembled at the edge of the ice nearest the ship, but as she was moored about twenty yards off, it became necessary for them to make use of the boat in order to get on board. This

August 14. Lat. 75° 54'. Long. 65° 55'.

was accordingly proposed, and after I had gone in and out of it several times, to show them that there was no danger, they at length stepped in, but with much reluctance and apprehension; and when the sailors made the boat roll from side to side their fears were extreme. After they had got safely on board, and had spent some time in helping themselves to whatever appeared portable, Meigack, his two sons, and the three strangers, were shown into the cabin, and many questions were put to them, the substance of which will appear hereafter, together with the rest of the information that was collected at different times. We then tried to discover if they had among them any amusements, such as music or dancing; and, after some difficulty, succeeded in persuading two of the strangers, who, we were made to understand, were nephews of Ervik, to give us a specimen of their dancing. One of them accordingly began immediately to distort his face, and turn up his eyes in a manner so exactly resembling the appearance of a person in a

August 14. Lat. 75° 54'. Long. 65° 55'.

fit of epilepsy, that we were convinced this accident had happened, and I was about to call for assistance from the surgeon. I was, however, soon undeceived, as he immediately proceeded to execute, in succession, a variety of extraordinary gestures and attitudes, accompanied by the most hideous distortions of countenance. Like the similar amusements of very different climates, these contained the indecent allusions which are well known to form an essential feature in the dances of many nations, in other respects far advanced in civilisation. The body was generally in a stooping posture, and the hands resting on the knees. After a few minutes the first performer began to sing "*Amnah ajah* *," and in a very short time the second, who had been looking at the other in silence, began, as if inspired, to distort his face, and imitate the indelicate attitudes of the first, joining soon after in the chorus, "*Hejaw, hejaw.*" After this had continued with increasing energy

* This song, which has no interpretation, is described in Krantz's Greenland.

August 14. Lat. 75° 54'. Long. 65° 53'.

for ten minutes, the tune was suddenly changed to a shrill note, in which the words "*Weehee, weehee,*" were uttered with great rapidity. They then approached each other by slipping their feet forward, grinning, and in great agitation, until their noses touched, when a savage laugh ended this extraordinary performance. This exhibition was loudly applauded, and when it was explained that we wished them to repeat it they readily assented, with much good humour. Meigack, in the mean time, seeing the attention of every one engaged, took occasion to slip unobserved by us into the state room, and purloined my best telescope, a case of razors, and a pair of scissors, which he artfully concealed in his tunic; rejoining the party and the amusements as if nothing had happened. He, however, did not escape the vigilance of the steward, who followed him on deck, charged him with stealing the articles, and made him return them; which he did without hesitation. I had afterwards some conversation with one of the dancers, who, we found, was an "*ange-*

August 14. Lat. 75° 54'. Long. 66° 53'.

kok," or conjuror, the substance of which will be hereafter mentioned. Having found fault with Meigack for not bringing his wife to see us, he eagerly enquired if our nation consisted wholly of men, or if we had women with us. Upon this I showed him a miniature of Mrs. Ross; at which they were much surprised, and for some time seemed to think that the picture was alive. A thought seemed then suddenly to strike them, that the ladies might be in the other ship; upon which they all set off for the *Alexander*, which lay alongside of the ice, about two hundred yards from the *Isabella*; but finding their mistake, they soon returned to us, and evidently disappointed. A parcel was, in the mean time, made up, consisting of some articles of clothing, looking-glasses, knives, scissars, and a snuff-box, on which was a portrait of His Royal Highness the Prince Regent, as a present to their king, Tulloowah. These were put into a canvas bag; but Sacheuse having enquired of some of the party, respecting the probability of its being delivered, it was

August 14. Lat. 75° 54'. Long. 67° 55'.

found that their propensity to pilfering rendered this project hopeless. I therefore altered my intentions, looking forward to the period when we might ourselves pay him a visit. I now explained to Meigack and his sons, as well as to his companions, how much I was disappointed by his failing to perform the promise he had made respecting the iron, and repeating my entreaties for some specimens; I showed them a large harpoon and a lance, with a large piece of a broken spar, all of which I promised to give them in return; at the same time assuring them, that they should neither be permitted to come on board, nor receive any further presents till they brought it. This they promised to do as soon as they could; but we were at the same time informed, that as the mountain was at a considerable distance, they would have to sleep twice before they could return. They now mounted their sledges, and drove off in different directions, by circuitous routes towards the land.

In the evening the weather had a very

August 15. Lat. $75^{\circ} 54'$. Long. $65^{\circ} 54'$.

stormy appearance, and the wind continued to blow from the east. The drifting of the floes had now also considerably accumulated the ice which formed the barrier to the north, and, at the same time, rendered it doubtful if we could maintain our situation much longer; as it was, therefore, necessary to keep all hands on board, for the safety of the ship, it became impossible for me to detach a party to the shore.

We had snow during the night, and the ice continued to beset us throughout a great part of the following day, till it was at length somewhat thawed by a heavy fall of rain. In the afternoon we were visited by the natives who had been on board the preceding day, with the exception of Meigack and his family; and also by two others whom we had not seen before. As they brought neither the iron nor the articles of dress they had promised, I gave orders that they should not be permitted to come on board, or to receive any presents. They said they had been at Inmallick (the headland to the northward), to procure stones

August 15. Lat. 75° 54'. Long. 63° 54'.

for the purpose of cutting off the iron from the rock ; and they gave us one of these, which appeared to be a basalt, together with a little of the dried moss, in a state ready for trimming their lamps. We also learnt that the water was clear of ice on the northern side of the Cape ; intelligence which could not fail to raise our spirits with the hopes of making some progress as soon as we were able to move from our present position. Finding they were not permitted to come on board, they became noisy and impertinent : but Sacheuse having told them that our *angedkok* would cause the ice to separate, and prevent their return if they did not go, they departed, promising to bring the iron without delay.

In the evening the weather moderated, and, at length, it became quite calm : the ice then separated, and so much of it dissolved, that the pool of water in which the ship was lying, increased to an extent of three miles each way. As soon as it was thus cleared, the awks were seen flying in clouds towards it, and soon covered the whole

August 16. Lat. 75° 57'. Long. 66° 22'.

surface of the water. We found that they came to feed on the same insects as the whale, and observed them devouring the heroes and cancers with which the water was crowded. Numerous whales were also observed engaged in the same pursuit, and I have no doubt that the fishery might here be pursued with success. Two boats were despatched from each ship, to procure as many as possible of these birds, for the purpose of preserving them in ice, and at midnight they returned with about fifteen hundred; having, on an average, killed fifteen at each shot. The boats of the *Alexander* were nearly as successful; three birds were afterwards daily served to each man, and they were found, among other ways of dressing them, to make excellent soup, not unlike, or at all inferior, to that made of a hare.

August 16. — This morning the large iceberg, which had so long defended us from the drift ice and from the gale, separated from the land-ice, and took a direction to the southward. The wind at the same

August 16. Lat. $75^{\circ} 57'$. Long. $66^{\circ} 24'$.

time sprung up from the N. E., and we made fast to a floe, in order to observe the motion of the ice. After Divine service, we had a good meridian altitude of the sun, and some observations on the dip of the needle ; we also tried Mr. Troughton's instrument for ascertaining the magnetic dip, but obtained no satisfactory result. At four o'clock the ice had opened sufficiently to warrant us in attempting a passage to the northward. Being very anxious, however, not to quit this place, if possible, without some further communication with the natives, I sent a man to the mast-head to look out, that I might know if there was any prospect of their speedy arrival. Unfortunately none were to be seen ; and feeling it, therefore, my duty to quit this position, and to pursue, without loss of time, the main object of the expedition, I gave to this country the name of the Arctic Highlands ; and, casting loose from the ice, made sail from Prince Regent's Bay.

CHAP. VII.

THE ARCTIC HIGHLANDS. — NATURE OF THE COUNTRY.
— ITS PRODUCE. — INHABITANTS. — LANGUAGE. —
MODE OF LIVING. — MANNERS AND CUSTOMS. —
RELIGION.

THE country, to which I have given the name of the Arctic Highlands, is situated in the north-east corner of Baffin's Bay, between the latitudes of 76° and $77^{\circ} 40'$ N., and the longitudes of 60° and 72° W.; extending thus on the sea-shore for one hundred and twenty miles in a N.W. direction: its breadth, where widest, does not exceed twenty miles, and towards the extremities is reduced to nothing. It is bounded on the south by an immense barrier of mountains covered with ice, which takes its rise in latitude $74^{\circ} 30'$, and extends to 76° , north. As far as could be judged from the ships, this barrier is impassable; and in many places the solid ice

Nature of the Country.

extends for several miles into the sea; from the precipices with which it is connected. The interior country presents an irregular group of mountainous land, declining gradually from the high ridge before mentioned, towards the sea; which it reaches in an irregular manner, and still at a considerable elevation; the sea-cliffs ranging from five hundred to one thousand feet in height. This tract is almost entirely covered with ice, and appeared to be impassable.

On the surface of the land, above the cliffs, a scanty appearance of vegetation, of a yellowish-green colour, and sometimes of a heath-brown, was to be seen; and, at their feet, similar traces of a wretched verdure were also apparent. Among the cliffs were seen deep ravines filled with snow, through which the marks of torrents were perceptible; these cliffs stretched out in many places into capes, being skirted by islands clear of sea-ice, and therefore washed by the waves. This appears to be the reason why the snow does not lie on them,

and to this must also be attributed the appearance of verdure just described. This coast is, therefore, the resort of wild fowl in the breeding season; and, from its exposure to the sea-winds, it must be sooner and longer open than the more southern parts, which are narrower, and where the water is shallower: for the same reasons, it must be the resort of seals and sea-unicorns, both earlier and later in the season.

The boundary of this region must be placed to the northward of Whale Sound, at Cape Robertson. From that cape towards the north the mountains rise immediately from the sea, with a rapid ascent, forming a ridge similar to that which takes its rise at Cape Melville. Thus it is enclosed on all sides, and precluded from all possibility of communication by land with any other inhabitants of this country, should there be any to the eastward of them. We were distinctly informed by the natives, that the tract of land which they inhabit was continuous, and not composed of islands,

Nature of the Country.

as described by some writers on the north of Greenland. The only island of importance was said to be in the middle of the inhabited part, and which could be no other than Wolstenholm Island.

With respect to the geology of this country, it is impossible to do more than to offer some conjectures, from our want of knowledge on this subject. As far as could be judged, the cliffs appeared, wherever they were exposed, to present an appearance of stratification; the lines of separation of the strata seeming to occupy high angles. The general outline and character of the country also appeared to bespeak the general existence of primary rocks, from the summits of the most distant ridge to the lowest skirts of the strata. This conjecture is strengthened by the nature of the few specimens collected; which, as may be seen in the list to be found in the Appendix, seem almost entirely limited to gneiss; a circumstance to be expected from the stratified appearance already described. The granite, it will be

Nature of the Country.

seen, is supposed in the remarks which accompany that list, to be the produce of veins: besides these two substances, there is a specimen of porphyry from Cape Melville, which is, in all probability, a fragment from a vein. At Cape York, it is probable that some members of the trap family exist, although it is impossible to determine under what form, as a solitary specimen only was found, and that was a rounded pebble; it is a very compact and fine-grained greenstone, of a somewhat porphyritic character, and is the rock used by the natives (already mentioned), for the purpose of cutting the fragments of iron from the masses of that substance.

The most important mineral production of this country, is the iron already described, which is found only at Sowellick, or the Iron Mountains. The circumstances attending this have already been described: it is now only necessary to add, that it has been examined by Dr. Wollaston, and found to contain nickel, and that it is probably of meteoric origin, since all the masses

Produce of the Country.

hitherto found in different places, and supposed to be derived from the same source, are distinguished by that peculiarity.

The most conspicuous vegetable productions of this country consist of heath, moss, and various coarse grasses, some further account of which is given in the Appendix. There was no appearance of cultivation, nor did we discover that the natives make use of vegetable food. The moss, which is found in great plenty, is six or eight inches in length, and when dried and immersed in the oil or blubber of the seal or sea-unicorn, is used for a wick ; producing a comfortable fire, and serving also for light. The heath and grass are the food and shelter of the hares and game which, as the natives informed us, were in abundance ; and the stems of the heath tied together make handles for the whips with which they manage their dogs.

The whale fisheries of this country might, undoubtedly, be pursued with great success in Prince Regent's Bay, and in Melville Bay. The whales are here not only

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large and numerous, but, probably from their having never been disturbed, tame, and easily approached. There is no doubt that the whole of this bay might be visited every season; and the circumstance of the ships employed in the fishery returning *clean**, can only be attributed to their leaving the bay before they ought. This they are often obliged to do for want of provision; and the sending of so small a supply, a practice arising either from the illiberality or parsimony of the owners, cannot be too severely reprehended; since it prevents the masters and crews, from standing a fair chance with those ships which are better provided, to the ruin of their character and employment, and is also a frequent cause of imminent risk to their lives. By remaining twelve or fourteen days longer than the usual time, ships might, with safety and ease, reach these fishing grounds, load, and return when the ice had dissolved.

Besides this, it is more than probable,

* A term used when they have taken no fish.

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that a valuable fur trade might here be established. Numbers of black foxes were actually seen by the officers and men who were on shore at the Crimson Cliffs, together with the traps used by the natives in catching them ; and we were informed that the country abounded in them. There can be no doubt that people of so harmless a disposition, might be easily instructed to collect these skins, which they do not seem to value, nor to use ; preferring those of the seal and the bear. The ivory of the sea-unicorn, the sea-horse's teeth, and the bear's teeth, may also be considered as articles of trade. All these could be procured for European commodities, such as knives, nails, small harpoon-heads, pieces of iron, wood of any description, crockery ware, and various cheap and useful utensils and tools ; both to the great benefit of the merchant, and to that of this secluded race of people.

It has been already stated, that when the

natives of this country were first discovered, their language was unintelligible to Sacheuse; even at the second interview, he found much difficulty in holding a communication, but at length discovered that they spoke the Humooke dialect. Upon enquiry, I found that Sacheuse had been nursed by an old woman, who was a native of Oppernowick, in lat. 73° N., who taught him this dialect. It not only differs materially in the pronunciation of the words, but also in the names of many articles, from the Eskimaux language, as it is spoken in the southern part of Danish Greenland; and it is peculiar to the inhabitants of the northern parts of this country. It is here believed, however, that the northern is the most ancient, or the original language. There is a still greater difference between the dialect of the Arctic Highlanders and the Humooke, the former being spoken very slow, and the names of those things which are most common in all countries being totally different. To illustrate this, I

subjoin a list collected from Sacheuse: yet it will be found that the two languages are radically the same.

They each seem to have the same practice of uniting together a number of words; a character equally common among the languages of the North American Continent; they have also the same method of declining by definite terminations; and they also use the negative, *njilak*, as a termination to verbs. Their numbers reach only as far as five, like the Southern Eskimaux; but they have no method of marking the day, which, in the south, is done by the tide. They had no names for any kind of fish, (except the whale,) and they seemed unacquainted with the use of it as food. Iron, which is found in the north, and not in the south, is called by both *sowick*; this in the south is also the name of a knife, which, in the north, is called *bellaouduk*. In the south the moon is called *pinga*, in the north *kaimut*; but it is known to both nations by the name of *anningack*, rendering it probable that they are both equally

acquainted with the same mythological fable respecting the origin of the moon, which has been the foundation of Dr. Johnson's well-known tale.

When Sacheuse was desired to ask if they had a king, he pronounced the words *nullikab*, signifying a person in authority; then *nakouack*, i. e. a strong man, who can kill more seals, and is respected or dreaded; but they did not understand him. He at last recollected that *pisarsuak* had been used as the name of a chief; they immediately answered in the affirmative, and said his name was *Tulloowak*.

A COMPARATIVE LIST
OF
THE NORTHERN AND SOUTHERN HUMOOKE
DIALECTS.

English.	Southern.	Northern.
Woman	Arnet	Arnewerset.
Young Man	Innusholok	Innuquowak.
Harpoon	Tookuk	Olootuk.
Harpoon Shaft	Ermeisuk	Ippou.
Loon (a Bird)	Akput	Pycallusweet.
Duckskin Shirt	Pinuset	Ater.
Hood of the Dress	Ilpaousuk	Okoukak.
Black Stone of the } Lamps	Okekesuk	Ouyarak (any stone).
Hook by which the } Lamp hangs	Kelipuet	Ousit.
Awks (Birds)	Akpalliaruk	Akpalliaruk-weet.
Boiled Meat	Oleke	Oostoch.
Sledge	Kamoutik	Kamoutipallia.
Traces for the Dogs	Pelaika	Uaita.

WORDS THE SAME IN BOTH DIALECTS.

English.	Northern Eskimoon.
Man	Ikunuk.
Man	Ikunuk.
Son	Ikuk.
Daughter	Ikuk.

Origin of the Arctic Highlanders.

English.	Northern Eskimaux.
Eyes	Pisiok.
Nose	Kinjack.
Mouth	Kanneck.
Skin	Haminuk.
Sun	Succanuk.
Fire	Innick.
Seal	Pussi.
Dog	Kimuck.
Ice	Licou.
Sea Water	Heniok.
Fresh Water	Hemuck.
No	Naakrie.
Go away	Naakrie-ai-plaite.
Sea-horse	Havick.
Whale	Haphuck.
One	Allausit.
Two	Ailek.
Three	Pinguijuk.
Four	Sissimat.
Five	Tellemat.

THE Origin of the Arctic Highlanders is a question as yet involved in peculiar obscurity. They exist in a corner of the world among the most secluded which has yet been discovered, and have no knowledge of any thing beyond the boundary of their own country: nor have they any tradition whence they came; appearing, until

Origin of the Arctic Highlanders.

the moment of our arrival, to have believed themselves to be the only inhabitants of the universe, and to have considered all the rest of the world as a mass of ice. It is generally believed by the natives of South Greenland, that they are themselves descended from a nation in the north ; and the moment they were discovered, Sacheuse exclaimed, " These are *right* Eskimaux, these are *our* fathers !" This supposition is confirmed by a tradition in Greenland, where it is related that a party of savages having come from the north to the establishments at Woman's Islands, murdered the Eskimaux stationed there ; the accounts of which having reached their friends in the south, a party went against them, and destroyed them in return. The similarity of the language proves that they are the same people ; and it appears most probable, that South Greenland has been peopled from the north, and that the northern parts of Baffin's Bay have been, in the same manner, originally peopled from America. It has been long ascertained, that the land discovered by Davis, on the west side of

Davis' Strait, was inhabited; and at the place where we landed, on the west side, in latitude 70° , there were evident marks of its recent occupation. The only parts which appeared to be uninhabitable, were between Whale Sound and Lancaster Sound, a tract, certainly, of very considerable extent; but which, with a sledge on the ice, would be only a three days' journey. It is not difficult to account for their having no canoes, as they labour under a total want of wood; and at any rate they could not use them above a few weeks; but it is, at the same time, not easy to understand how they should be ignorant, even traditionally, of the existence of a boat. They present a solitary instance, as far as we know, and apparently a very singular one, of a maritime and fishing tribe unacquainted with any means of floating on the water. The want of wood is scarcely an excuse for this ignorance, as a people accustomed to make sledges from bones and skins, could find no great difficulty in constructing some kind of boat of the same materials.

Dress of the Arctic Highlanders.

THE Dress of the Arctic Highlanders consists of three pieces, which are all comprised under the general name of "*tunnick*." The upper one is made of seal-skin, with the hair outside, and is similar to the woman's jacket of the South Greenlander; being open near the top only, so as to equal the size of the wearer's face. At the bottom it is formed like a shirt, terminating in a tongue before and behind; the hood part being neatly trimmed with fox's skin, and made to fall back on the shoulders, or cover the head, as required. This is lined, in general, with eider-duck, or awk-skins; and the lining, being close at the bottom and open near the breast, serves as a pocket. The next piece of dress, which scarcely reaches the knee, is also uncomfortably small in the upper part; so that, in stooping, the skin is exposed. This is made of bear's or dog's skin, and fastened with a string. The boots are made of seal-skin, with the hair inwards, the soles being covered with sea-horse hide; they reach over

the knees, and meet the middle part of the dress. The whole of these are made by the women ; the needles used being of ivory, and the thread of the sinews of the seal : the seams are so neat that they can scarcely be distinguished. They informed us, that in the winter, or as the weather became colder, they had a garment of bear-skins, which they put on as a cloke ; but this we did not see, nor were we able to persuade them to spare any part of their dress.

The Arctic Highlanders are of a dirty copper colour ; their stature is about five feet, their bodies corpulent, and their features much resembling the Eskimaux of South Greenland. The following description of Ervick, of whom so much has already been said, and of his nephews, Mar-shuick and Otooniah, will give a just idea of the whole tribe. This man, who appeared to be about forty years of age, measured five feet one inch in height, his skin being of a dirty copper colour, rather darker than the generality. His face was broad, his forehead narrow and low, with some wrin-

Description of the Arctic Highlanders.

kles, and his nose small and straight. The cheeks were full, round, and ruddy, even through the oil and dirt which covered them ; his mouth large, generally half open, and though he had lost his fore-teeth, the remainder were white and regular ; his lips were thick, particularly towards the middle ; his eyes small, black, oval, and very near to each other ; his hair was black, coarse, long, and lank, and had certainly never been cut or combed ; and his beard and mustachios, which were suffered to grow, were scanty, and confined to the upper lip and chin. His body was fleshy, inclining to corpulence : his hands thick and small, the fingers short, and the feet very short and thick. Though good humour was fully expressed in his countenance, it also bore that indescribable mixed appearance of ignorance and wildness, which characterises all uncivilised people. In walking he seemed inactive, and it was with much difficulty that he got up the ship's side.

Marshuick appeared to be twenty-three years of age ; he was not so dark as his

uncle ; his features were so pleasing, that we gave him the name of the “ handsome native ;” he was not so corpulent as the rest, but in every other respect his appearance was the same.

Otooniah was about twenty-one years of age ; his features were much freckled, and we recognised a likeness between him, and a Greenlander whom we had seen in N. E. Bay : both these, who were brothers, had white regular teeth, and were five feet high. The man who stole the hammer was by much the tallest, being five feet six inches and a half ; his skin was not so dark as Ervick’s, his nose was large and aquiline, his forehead very narrow, and the lower part of his face broad ; his body was muscular, and his features savage and dishonest ; he had less beard than the rest, but was in other respects the same.

The greatest number of natives seen was about eighteen : many attempts were made to discover the numbers of the tribe, but without success, as they could reckon no further than five, and could therefore only

say, "plenty people," pointing to the north; but it must be recollected, that this was only a party detached from the main body.

ERVICK, being the senior of the first party that came on board, was judged to be the most proper person to be questioned on the subject of religion. I directed Sacheuse to ask him, if he had any knowledge of a Supreme Being; but after trying every word used in his own language to express this, he could not be made to understand what he meant. It was distinctly ascertained that they did not worship the sun, moon, or stars, or any image, or living creature. When asked, what the sun or the moon was intended for, he said, to give light. He appeared to have no idea respecting his origin, and no conception of a future state; he merely said, that when he died he would be put into the ground. Having fully ascertained that he had no idea of a beneficent Supreme Being, I proceeded, through Sacheuse, to enquire if he believed in an evil spirit; but he could not

be made to understand what was meant. The word " *angekok*," which means a conjuror, or sorcerer, was then pronounced to him in the South Greenland language. He said, that they had many of these : that it was in their power to raise a storm, or make a calm, and to drive off seals, or to bring them : that they learned this art from old *Angekoks*, when young : that the people were afraid of them ; but that they had generally one in every family. *Mejgack* gave precisely the same answers, and had the same notions, but he was not so intelligent as *Ervick*. Finding that *Otooniah*, the nephew of *Ervick*, a lad of eighteen years of age, was a young *angekok*, I brought him into the cabin by himself, and, through *Sacheuse*, asked him how he learned this art. He replied, from an old *angekok* ; that he could raise the wind, and drive off seals and birds. He said that this was done by gestures and words ; but the words had no meaning, nor were they said or addressed to any thing but the wind or the sea. He assured us, that in this incantation

he did not receive assistance from any thing, nor could he be made to understand what a good or an evil spirit meant. When Ervick was told that there was an omnipotent, omnipresent, and invisible Being, who had created the sea and land, and all therein, he showed much surprise, and eagerly asked where he lived. When told that he was every where, he appeared much alarmed, and became very impatient to be on deck. When told that there was a future state, and another world, he said that a wise man, who had lived long before his time, had said that they were to go to the moon, but that it was not now believed; they believed, however, that birds, and other living creatures, came from it. Although we could thus obtain no proof that this people had any notions of a Supreme Being, or of a spirit, good or bad, the circumstance of their having conjurers, and the tale of their going to the moon after death, render it probable that they possess some religious ideas, however barbarous, and that the unsatisfactory inform-

Mode of Living and Customs of the Arctic Highlanders.

ation which we obtained on this head, arose chiefly from our ignorance of their language, and from the very imperfect and limited communication which we had with them.

We had no opportunity of visiting the habitations of these people, and the sight which we obtained of them was at too great a distance to enable us to form a judgment either of their construction or comforts ; but, from the description given by the natives, they appeared to be always situated near the sea-side, on a spot the least liable to be overwhelmed by snow. These houses are built entirely of stones, the walls being sunk three feet into the earth, and raised to three feet above it ; the roof is in the form of an arch, and such holes as would admit air are filled up with mud: they have no windows. The entrance is by a long, narrow, and nearly under-ground passage. The floor is covered with skins, on which they sit or sleep ; several families living in one house, and each family having a lamp made of a hollowed stone, suspended from the roof,

in which they burn the oil, or rather the blubber of the seal and sea-unicorn, using dried moss for a wick: their fire is produced by friction, and, as we understood, from iron and stone. The lamp, which is never extinguished, serves for light and warmth, as well as for cooking; and we ascertained that they had methods both of boiling and of roasting, or scorching, their meat; occupations which fall entirely on the women. They eat all kinds of animal food; but the seal and sea-unicorn* are

* The sea-unicorn, *monoceros*, *narwhal*, or *unicorn-fish*, has been found twenty-two feet long, and twelve round, head nearly one-fourth the length of the body, round, small, and terminates in an obtuse rounded snout. Mouth small, no teeth; but a large wreathed tusk, or horn, sometimes two, and often ten feet long, proceeds from his upper jaw, diverging to one side, and tapering towards the point. Eyes and ears very small; one respiratory orifice in the back of the head; back broad, convex, tapering towards the tail, which is horizontally placed, and is divided into two obtuse oval lobes. Body of an ovoidal shape, no dorsal fins, but a high ridge, or projection, extends from the blow-hole towards the tail, and gradually diminishes in height as it approaches the tail: two pectoral fins; colour generally cinereous, dappled with numerous multiform black

preferred, as being more oily and agreeable to their palates. Dogs are also esteemed excellent food, and are bred as live stock, as well as for drawing the sledge ; but they are only eaten in winter, when no other food can be obtained. The men catch the seals, either when they are asleep, or by lying down near the holes in the ice, making a peculiar noise, by which they are

spots; belly a shining white, and soft as velvet to the touch.

Mollusca and *actinea* were their general food; the unicorn-fish swims with great swiftness, but, like other cetacea, cannot remain long under water without respiring; though seemingly harmless, he is a dangerous enemy to the whale, and has been known to dart his horn into the side of a ship. (*First Voyage*, p. 335.) The oil is of a superior quality, and the horn was long the subject of a kind of superstitious respect. It was said to be efficacious in the cure of several distempers, and was prized as being of the very highest value. The Margraves of Bareuth possessed one which cost them six hundred thousand rix-dollars; and the Kings of Denmark have a throne formed of it, which is esteemed more valuable than if composed of gold. The horn is of a finer texture, and takes a better polish than the elephant's. — *Laing's Voyage to Spitzbergen*.

brought to the surface. When the animal appears they imitate his cry, or grunt, and by this means induce him to come on the ice and approach them; when within reach, they strike him on the nose with a spear made of sea-unicorn's horn, and soon despatch him.

The sea-unicorn is taken by a harpoon, the barbed part of which is about three inches long; having a line attached to it of about five fathoms in length, the other end of which is fastened to a buoy of a seal's skin, made into a bag and inflated. The blade is fixed on the end of the shaft in such a manner that it may be disengaged from the handle after it is fixed in the animal, and the shaft is then pulled back by a line, which is tied to it for the purpose. When struck, he immediately plunges, and carries down with him the seal-skin buoy, which fatigues him. As he must come up in some pool to respire, like the whale, he is followed and killed with spears; and as he frequents the chasms and pools in the ice, he falls an easy prey to the natives.

We could not learn the precise manner in which they kill the bears, but they informed us that they attacked them in the water. The foxes and hares are taken in traps, made of stones, resembling a small grotto, and having a narrow entrance, which is closed by a stone that falls down when the animals enter to take the bait left within it. The natives described to us an animal which they called *humminick*, but said it was too large for them to kill; it has, by their account, a horn on its back, and is very swift; I therefore supposed that it was the reindeer. They have also an animal known to both countries by the name of *ancarok*, but which does not appear to be mentioned by the writers on Greenland. Sacheuse says, it is not uncommon about North-east Bay and Disco Bay, where its cry is continually heard at night. It is very wild, and can seldom be approached, being very active and fierce: the Eskimaux are afraid of it. He says it resembles a cat, but is three times larger; that it moves by jumping, more than by running, and lives

Mode of Living and Customs of the Arctic Highlanders.

in holes and caverns in the rocks; that it eats hares and partridges, which it lies in wait for, and catches by springing on them. The hares seen by our people were white, and are described in the Appendix. The foxes were generally black, but they were also seen both of a white, and of the common colour, which they have in southern countries; unfortunately none of them were taken, and therefore they cannot be particularly described. The dogs, which are the only animals that have been domesticated by the Arctic Highlanders, are of various colours, but chiefly of a dun hue; they are of the size of a shepherd's dog, with a head like a wolf, and a tail like a fox; their bark resembles the latter, but they have also a howl like the former.

The Arctic Highlanders never hunt, nor travel to any distance, except on their sledges, and they always carry with them their spears and knives: from the rapidity with which they seem to drive, it may be fairly conjectured that they can travel fifty or sixty miles a day; distances, indeed,

which are known to be performed by the natives of South Greenland. The habits of this people appear to be filthy in the extreme; their faces, hands, and bodies, are covered with oil and dirt, and they seem never to have been washed since they were born. Their hair was matted with filth, yet they seemed very tenacious of it; for, when a small piece was cut off from the head of one of Meigack's sons, both he and his father were much displeased, and showed great uneasiness until it was returned; when it was carefully wrapped in a piece of seal-skin, and put by the former into his pocket. We learned that each man took one wife, when he was able to maintain a family; if she had children, he took no other, nor was she permitted to have another husband; but, if otherwise, the man may take another wife, and so on a third, until they have children; the women having the same privilege. Ervick spoke very affectionately of his wife, who he said was a good one, because she had six sons; when they took or begged any fanciful thing, such

Habits and Customs of the Arctic Highlanders.

as a looking-glass or a picture, they all said it was for their wives. They also showed much respect to their mothers: as one of them refused to part with his sledge, and another with his jacket, lest their mothers should be displeased. The dress of the women is, from what we could collect, the same as that of the men. We could not discover whether they lived to a great age or not, as the old people had been sent to the mountains, or concealed on our approach*; nor did we see any of the children. I asked both Ervick and Meigack if they would spare one of their sons, which they refused to do; nor could either of them be tempted by any presents to overcome their objections. Indeed, none of them were willing to leave their country; they seemed perfectly happy and contented: their clothing was in good condition and very suitable to the climate, and by their own account, they had abundance of provisions. They all acknowledged Tulloowah as their king,

* Meigack, who appeared to be about 40 years of age, said that his father was still alive.

and represented him as a strong man, very good, and very much beloved; the name of his residence was Petowack, and they described it as being near a large island, in the middle of their country, which could be no other than Wolstenholme Island. He had a large house built of stone, which they described to be nearly as large as the ship: they said that there were many houses near it, and that the mass of the natives lived there; that they paid him a portion of all they caught or found, and that they returned there when the sun went away, with the fruits of their labours. They could not be made to understand what was meant by war, nor had they any warlike weapons; I therefore gave strict and positive orders that no fire-arms, or other warlike weapons, should be shown them, or given to them on any account, and, when they were with us, all shooting-parties were called in. They seemed to have no peculiar diseases among them, nor did we see any deformed persons.

Such is the substance of what we collect.

ed in our short intercourse with this interesting people. It is unfortunately very defective; but it must be recollected that the ships were always in motion, principally from the unsettled state of the weather, which rendered it impossible for us to send parties on shore after the first day. We had daily hopes of obtaining a more complete access to them, even to the last moment when we were obliged to leave this part of the coast; and in proceeding northward from our last station, had still the prospect of visiting their king, and filling up the measure of information. These hopes were ultimately disappointed, as will appear by the events that will be related in the ensuing Chapter.

CHAP. VIII.

PASSAGE THROUGH THE LAST BARRIER. — DISCOVERY OF CAPE YORK. — CRIMSON CLIFFS AND COLOURED SNOW. — CAPE DUDLEY DIGGES. — FORMATION OF AN ICEBERG. — PETOWACK. — WOLSTENHOLME SOUND. — OBSERVATIONS ON THE ATMOSPHERE.

THE ships being again under sail, with more cheering prospects before them, proceeded along the margin of the ice, where it appeared attached to the land, with a fine breeze from the north. In about two hours we arrived at the barrier of icebergs, which has been before described as stretching from the northernmost land in sight, towards the west. We soon discovered that these masses were aground on each side of a shoal, in which about forty fathoms water were in some places found. We passed through many intricate and narrow channels, and at four o'clock we rounded this cape, which I named after the Duke of

August 16. Lat. 75° 57'. Long. 66° 24'.

York, in commemoration of the birth-day of His Royal Highness. The land, from this cape, took a W. by N. direction; we continued to steer along it, at the distance of four miles, and, for the first time, saw the sea wash the rocks. The wind being light, the boats were sent on shore to look for the habitations of the natives, to make observations on the rise, fall, velocity, and direction of the tide, and to procure specimens of natural history; in the mean time soundings were obtained in fifty fathoms. At midnight one of the boats returned, with various specimens of plants and of rocks. The officers reported that the water was deep close to the shore, which was very steep and rocky. The tide fell two feet during the three hours which they were on shore, its velocity being about one mile in the hour, and the ebb running to the eastward. The party did not meet with any of the natives, nor did they succeed in discovering their habitations, but they saw several of the stone traps, a description of which has been already given.

August 17. Lat. $75^{\circ} 54'$. Long. $67^{\circ} 15'$. Var. 100° W.

Many black foxes were seen by the officers, together with some white and red ones; several shots were fired at them, but none were killed. The other boat was equally unsuccessful in the attempts to obtain specimens of these animals.

August 17. — We continued our course along the land, at the distance of five or six miles, among numerous bergs and pieces of loose ice. By the former, which were aground in fifty fathoms, we found that the tide began, about ten o'clock, to carry us to the eastward; I therefore made fast to a berg, and, by the log, found the current running at the rate of one knot an hour. It was now calm, but a breeze soon sprung up, and we only remained fifteen minutes in that situation, after which we made sail, and found we could do rather more than stem the tide. This morning being clear, I sent to an iceberg to obtain azimuths, but owing to the attraction of the boat, which had ice-anchors on board, no satisfactory result was obtained; the latitude and longitude, however, of Cape York

August 17. Lat. $75^{\circ} 54'$. Long. $67^{\circ} 15'$. Var. 100° W.

were accurately determined. We now discovered that the snow, on the face of the cliffs, presented an appearance both novel and interesting, being apparently stained, or covered, by some substance, which gave it a deep crimson colour. Many conjectures were formed concerning the cause of this appearance; it was at once determined that it could not arise from the dung of birds, as thousands of these, of various descriptions, were seen repeatedly sitting on the ice, and on the snow, but without producing any such effect.

At two P.M. it fell nearly calm, and I sent a boat with Mr. Ross, Mr. Beverley, and a party, to bring off some of the snow, and to make their remarks on the circumstances attending it; they were also ordered to procure specimens of natural history, and to ascertain if this part of the country was inhabited. The boat arrived at the shore nearly at low water, and found that the tide had fallen nine feet. The party remained two hours on shore, and found the cliffs were accessible at the spot where they

August 17. Lat. $75^{\circ} 54'$. Long. $67^{\circ} 15'$. Var. 100° W.

landed; but they did not get to the top, being recalled in consequence of a breeze which sprung up. They were equally unsuccessful in meeting with natives, or their habitations, as in procuring specimens of the black fox, many of which they saw and fired at, but without effect. They found that the snow was penetrated, in many places to a depth of ten or twelve feet, by the colouring matter, and that it had the appearance of having been a long time in that state. The boat returned at seven with a quantity of this snow, together with specimens of the vegetation, and of the rocks, the description of which will be found in the Appendix. The snow was immediately examined by a microscope, magnifying 110 times, and the substance appeared to consist of particles resembling a very minute round seed, all of them being of the same size, and of a deep red colour; on some of these globules a small dark speck was also seen. It was the general opinion of the officers that this was a vegetable substance, an opinion confirmed

August 17. Lat. $75^{\circ} 54'$. Long. $67^{\circ} 15'$. Var. 97° W.

by the nature of the places where it was found. These were the sides of the hills, about six hundred feet high, the tops of which were covered with vegetation of a yellowish-green and reddish-brown colours. The extent of these cliffs was about eight miles; behind them, at a considerable distance, high mountains were seen, but the snow which covered these was not coloured.

Both the ships were here made fast to the icebergs which lay aground, and the velocity of the tide, which was now at the highest spring, was ascertained to be one mile an hour, its direction being W. N. W. and E. S. E. In the evening I caused some of the snow to be dissolved, and bottled, when the water had the appearance of muddy port-wine. In a few hours it deposited a sediment, which was examined by the microscope; some of it was bruised, and found to be composed wholly of red matter; when applied to paper, it produced a colour resembling that of Indian red. This substance has been examined since our re-

August 17. Lat. $75^{\circ} 54'$. Long. $67^{\circ} 15'$. Var. 97° W.

turn to this country, and various opinions given concerning it, but Dr. Wollaston seems to concur in that which we originally held, of its being a vegetable substance produced on the mountain immediately above it. It cannot be a marine production, as in several places we saw it at least six miles from the sea, but always on the face or near the foot of a mountain.

A strict look-out was kept all this day for the natives and their habitations, as we passed along shore. The main body of solid ice appeared a few miles to the south-westward of us, and innumerable icebergs were seen in every direction. In the evening we had an easterly breeze, and Cape Dudley Digges, which Baffin describes as being easily known by a small island off it, was seen. This island has a conical shape, and is very rugged. It was perfectly clear of snow, and appeared to be about four miles distant from the pitch of the Cape; it was found to be bold and deep on the outside, but on the inside there was a rip-

August 18. Lat. $76^{\circ} 12\frac{1}{2}'$. Long. $69^{\circ} 34\frac{1}{2}'$. Var. 102° W.

pling, which led us to judge that the water was there shallow.

The situation of the ice obliged us to pass very close to this island, and the hand-lead was therefore kept going, together with a good look-out for rocks from the jib-boom end and the crow's nest. As we approached this part of the coast, we perceived, for the first time, a considerable swell, which we could not but deem a favourable omen. Soon after this we discovered water clear of ice, to the north-westward, as far as could be distinguished from the mast-head.

August 18. — During the night the wind was light, but the Alexander brought up a breeze. Cape Dudley Digges was found to be a few miles to the southward of the situation in which Baffin has laid it down. It appeared to form a precipice of about eight hundred feet in height, was perfectly clear of snow, and presented a yellowish vegetation at the top: behind it, at the distance of eighteen miles, there were seen high mountains covered with snow. There

August 18. Lat. $76^{\circ} 12\frac{1}{2}'$. Long. $69^{\circ} 54\frac{1}{2}'$. Var. 102° W.

was too much swell to allow us to land ; nor, indeed, was this deemed proper ; our main object being now the prosecution of our voyage, and the lateness of the season not permitting any further delays.

The land now appeared to trend to the northward ; there were several inlets, which might have formed excellent harbours, but they were all filled with glaciers, some of which extended to a considerable distance into the sea. The cliffs were, in most places, perpendicular, but there were also chasms and ravines, in which were the marks of torrents. About six miles to the north of Cape Dudley Digges, a beautiful glacier was seen, filling up a space of four miles square, and extending several miles into the sea ; its height appeared to be at least one thousand feet. To the north of this several huts were plainly distinguished, which led us to believe it to be Petowack. Wolstenholme Island was now in sight to the northward, and as we were steering for it with a fine breeze, and the sea almost clear of ice, we gave up all idea of communicating with

August 18. Lat. $76^{\circ} 12\frac{1}{2}'$. Long. $69^{\circ} 54\frac{1}{2}'$. Var. 102° W.

the King of the Arctic Highlanders ; the hopes of attaining the grand object of the enterprise were now raised to such a height, as to make that, which was considered so desirable but a few hours before, an object of no moment whatever. As we approached Wolstenholme Island, and opened the Sound of that name, I sent a boat to try to reach the shore, but a thick fog coming on, I was obliged to recall her. The passage between the island and the land, as well as the sound, was completely filled with ice. A remarkable rock was seen, which I named Dalrymple Rock ; the Cape forming the south entrance I named after his Grace the Duke of Athol, and that to the northward after the Earl of Stair.

Before closing this part of the narrative, it will not be improper to give some account of the atmospherical phenomena which were observed during a tedious progress through six hundred miles of ice ; as well as of the manner in which our crews were governed and treated to preserve their

August 18. Lat. $76^{\circ} 12\frac{1}{2}'$. Long. $69^{\circ} 54\frac{1}{2}'$. Var. 103° W.

health ; an object of such vital importance to our enterprise.

Our meteorological remarks were registered every two hours, and on comparing them, it appeared that there was but little variation either in the barometer or the thermometer during the whole summer. We were occasionally visited by fogs, which were, in general, extremely thick, and of a very white appearance, while, in the zenith, the blue sky was apparent. On such occasions the thermometer was generally at the freezing point ; and at the moment the fog touched the ropes of the ship, it froze so as in a very short time to cover them with ice to the thickness of a man's arm ; every evolution of the ship strewing the deck with its fragments. In the absence of these fogs, the atmosphere was often beautifully clear ; some of the objects on the horizon were frequently raised in an extraordinary manner by the powers of refraction, while others, at a short distance from them, were as much depressed. The use of the dip-

August 18. Lat. $76^{\circ} 12\frac{1}{2}'$. Long. $69^{\circ} 54\frac{1}{2}'$. Var. 108° W.

sector was totally suspended, as, in consequence of this irregularity, no satisfactory results could be obtained from it. From these effects of the horizontal refraction, the objects near the horizon were continually varying in shape; the ice had sometimes the appearance of an immense wall, with here and there a space resembling a breach in it; icebergs, and even small pieces of ice, had often the appearance of trees; and while, on one side, we had the resemblance of a forest near us, the pieces of ice on the other were so greatly lengthened, as to look like long low islands.

We were often able to see the land when a long way off, and it was clearly ascertained that we discovered objects at a distance of one hundred and fifty miles or more. Many observations with the sextant were made on those objects which were under the influence of the horizontal refraction, and it was thus proved that the same individual had its altitude increased even to half a degree in the course of a few minutes. The high rock off Cape Dudley

August 18. Lat. $76^{\circ} 12\frac{1}{2}'$. Long. $69^{\circ} 54\frac{1}{2}'$. Var. 102° W.

Digges was observed to rise from 2° to 5° within an hour; in the course of the next half hour it again decreased to the appearance of a speck on the water, and soon after became like a long low island; in which state it remained for some hours, when it resumed its natural shape. While the moon was in sight, she had the appearance of following the sun round the horizon, and when they were both passing in azimuth along the tops of the mountains, the snow, which had naturally a yellow tinge, had the lustre of gold; its reflection upon the sky producing a green tint so delicately beautiful as to surpass description. At other times, when the rays of the sun darted over the tops of the mountains, on the icebergs, they appeared like edifices of silver, adorned with every variety of precious stones.

The orders and regulations for the officers and crews of the expedition being detailed in the introduction to this narrative, it is unnecessary here to describe the discipline which was enforced, and which is so essen-

August 18. Lat. $76^{\circ} 12\frac{1}{2}'$. Long. $69^{\circ} 54\frac{1}{2}'$. Var. 102° W.

tially requisite in preserving the health of the men. In the course of our tedious and often laborious progress through the ice, it became necessary to keep the whole of the crew at the most fatiguing work, sometimes for several days and nights without intermission. When this was the case, an extra meal was served to them at midnight, generally of preserved meat; and it was found that this nourishment, when the mind and body were both occupied, and the sun continually present, rendered them capable of remaining without sleep, so that they often passed three days in this manner without any visible inconvenience; returning after a meal of this kind to their labour on the ice, or in the boats, quite refreshed, and continuing at it without a murmur. The exercise was doubtless a considerable preventive of the scurvy, which was the complaint most to be feared. As long as the vegetables lasted, no lime-juice was served; when the men got wet, which often happened, they were made to shift their clothes and put on dry ones: caps of can-

August 18. Lat. $76^{\circ} 12\frac{1}{2}'$. Long. $69^{\circ} 54\frac{1}{2}'$. Var. 102° W.

vas, lined with flannel, were made for them; these were conical in shape, and large enough to cover the shoulders, and button under the chin; they had the effect of keeping the neck and breast warm, and being painted on the outside, turned the water off effectually; they were made use of in rainy, snowy, or foggy weather. With these precautions, and the men being all of good constitution, we never had a sick person, and when we arrived at this part of our voyage, no crews were ever in higher health or spirits.

CHAP. IX.

PROGRESS TOWARDS THE NORTH. — WHALE SOUND,
 CAREY'S ISLANDS, AND HEAD OF BAFFIN'S BAY, DIS-
 COVERED. — SMITH'S SOUND. — CAPE CLARENCE. —
 JONES'S SOUND. — ENTANGLED WITH ICE. — THICK FOUL
 — CAPE LEOPOLD. — PRINCESS CHARLOTTE'S RE-
 MENT. — GET CLEAR OF THE ICE, AND PROCEED TO
 THE SOUTHWARD.

THE breeze which had brought us on con-
 tinuing fair, we passed Wolstenholme Sound
 about two P.M., and found it completely
 blocked up with ice. It seemed to be
 eighteen or twenty leagues in depth, and
 the land on each side, which has been al-
 ready described, appeared to be habitable;
 but no habitations were discovered. We
 found the entrances to this inlet, and the
 general form and appearance of the land,
 to agree extremely well with the descrip-
 tion of it given by Baffin, as well as did its
 bearing and distance from Cape Dudley
 Digges. When we had passed this Sound,

August 18. Lat. $75^{\circ}25'$. Long. $71^{\circ}00'$. Var. $103^{\circ}10' W$.

the breeze, which had now blown for some hours, gradually subsided into a calm, and we were thus fortunately enabled to ascertain that there was no current. The boat was also sent to examine some icebergs that were seen to be aground, and we thus discovered that there was no tide of consequence. An opportunity was thus also afforded for sounding, and in trying the bottom we found it rocky; the depth being two hundred and fifty fathoms. At four P. M. Whale Sound was discovered, but we could not approach it in a direct line, on account of the ice. The wind then shifted to the northward, and obliged us to stand towards the west; in which direction the greatest extent of clear water appeared to lie. The land to the northward of Whale Sound appeared to be very mountainous, and to take a westerly direction. I named the capes on each side after Lieutenants Parry and Robertson; and to a Sound which lies to the north of Cape Stair, I gave the name of Booth Sound. These two inlets were not so large as the first, and

August 19. Lat. $76^{\circ} 28\frac{1}{2}'$. Long. $73^{\circ} 19\frac{1}{2}'$. Var. $102^{\circ} 00'$ W.

were both filled with ice. At nine P. M. the weather became very clear, and Carey's Islands were discovered; these also agreed with the description of Baffin, and appeared to be twelve leagues from the main, which bore from them about north. The sea was now clearer of floes and loose ice than we had ever seen it; but we found a vast number of very large icebergs, most of which were aground in two hundred and fifty fathoms, and appeared to have been long washed by the waves. The wind, which was from the north, freshened so much, as to prevent us from fetching these islands; and being anxious to get as near them as possible, I made all sail, and left the Alexander at a considerable distance.

We continued our course the whole night, until eight in the morning, when we found ourselves abreast of the westernmost of the islands above mentioned, and stood for a large iceberg, to which a party was sent to take observations for the time and variation, with directions to remain there for the meridian altitude. In the

August 19. Lat. $76^{\circ} 28'_{\frac{1}{2}}$. Long. $73^{\circ} 19'_{\frac{1}{2}}$. Var. 102° W.

mean time we tacked, and stood to the N. E., to get a better view of Whale Sound, and the land near it, and were soon convinced that there was no navigable passage in that direction. At noon we returned to the iceberg for our boat, by which time the Alexander had reached it; we exchanged signals with each other, and, on comparison, found that the observations for latitude, longitude, and variation, agreed in both ships. After this we resumed our course to the westward, and Hackluit's Island of Baffin was seen appearing very near to the main land. At two we discovered land to the S. W., apparently about twenty-five leagues off: every object seemed much raised by refraction, and several observations were made, which confirmed what has been already said on this subject. To the westward of Hackluit's Island we discovered a cape, which I named after Sir James Saumarez, in compliment to that gallant admiral, under whose command I had served for many years; the land from thence trended

Aug. 19. Midnight. Lat. $76^{\circ} 54'$. Long. $74^{\circ} 21'$. Var. $105^{\circ} 00'$ W.

to the north. It fell calm about seven P.M., when a party was sent to observe azimuths; in which they were, however, disappointed, by a fog coming on soon after they reached the nearest iceberg; but the dip of the magnetic needle was observed. Soon after the return of the boats, a fresh breeze sprung up, and I had hopes of being able to examine the great bay which appeared to the north, through which a passage might possibly be found. For this purpose we bore up under all sail, but had not proceeded above ten miles, when a very thick fog came on, accompanied with a considerable swell from the southward. We ran to the northward through much loose ice, about six miles, when the wind increased, and obliged us to close reef the topsails; and it being imprudent to run under such circumstances, I hauled to the westward.

At ten it cleared up and moderated a little, and I made the signal for Lieutenant Parry; when, having delivered to him some additional sealed instructions, to be opened in the case of parting company, I bore up

Aug. 19. Midnight. Lat. $76^{\circ} 54'$. Long. $74^{\circ} 20'$. Var. $103^{\circ} 00'$ W.

again to make out the situation of the land: Carey's Islands were then in sight to the S. E. of us. It continued clear until near one in the morning, and the sun passing in azimuth below the pole, along the tops of the mountains, gave us an excellent view of the bottom of this bay. Smith's Sound, discovered by Baffin, was distinctly seen, and the capes forming each side of it were named after the two ships *Isabella* and *Alexander*. I considered the bottom of this Sound to be about eighteen leagues distant, but its entrance was completely blocked up by ice; a thick fog soon came on, and we again hauled to the westward.

During the time we were running before the wind for this Sound, every precaution was taken to avoid accident; look-out men were placed at the mast-heads, yard-arms, and jib-boom-end, while the lead was kept going. When we hauled our wind, we were at a considerable distance from the *Alexander*, which gave us an opportunity of sounding with the deep-sea clammers; we found one hundred and ninety-two

August 20. Lat. $76^{\circ} 46\frac{1}{2}'$. Long. $75^{\circ} 21\frac{1}{2}'$. Var. 102° W.

fathoms, and obtained a quantity of grey mud, with stones and chocolate-coloured clay, in which some worms were found: the large icebergs, which we passed in great numbers, were also a proof that the water was not shallow.

August 20. — We were now, by our reckoning, in latitude $76^{\circ} 54'$ N., Cape Saumarez ten leagues distant, and Carey's Islands bearing about S. E. Having determined that there was no passage further to the northward, I stood under easy sail to the S. W. for ten miles further, during which we had much difficulty to avoid the loose ice with which the sea was covered, and it becoming thicker the nearer we approached the shore, we hove to in this position, for the fog to clear away. At seven the gale considerably abated, and we hauled to the N. N. E., taking the precautions already described to avoid danger.

We ran from nine A. M. until four P. M., when it suddenly cleared, and we saw the nearest land at a distance of six leagues, bearing N. W.; to the north-eastward there

August 20. Lat. $76^{\circ} 46\frac{1}{2}'$. Long. $75^{\circ} 21\frac{1}{2}'$. Var. 105° W.

appeared a bay, which we judged to extend to latitude $77^{\circ} 45'$ N., but the land was distinctly seen beyond it, forming a chain of mountains from Smith's Sound to the westward. It was my intention to have examined this bay, which was evidently the northernmost, in order to determine more accurately its geographical situation; but a firm field of ice occupied the whole of its vast surface, at the outer edge of which lay a ridge of large icebergs, apparently aground. These, I conjectured, had been formed on the coast to the westward, where the sea was deep near the rocks, and they appeared to have been driven on shore here by strong southerly gales. There were two capes within this bay, one of which I named after Captain Hurd, and the other after our worthy friend Mr. Mouat.

Having approached these icebergs as near as possible, I made the signal for Lieutenant Parry, and gave him directions to proceed with a party to the most convenient, in order to make observations on the dip of the needle and the intensity of the mag-

August 20. Lat. $76^{\circ} 46\frac{1}{2}'$. Long. $75^{\circ} 21\frac{1}{2}'$. Var. 102° W.

netic force, as also upon the rise, fall, direction, and velocity of the tides. The magnetic dip was found to have increased from $85^{\circ} 44' 38''$ to $86^{\circ} 9' 33''$ since the preceding day, and the force, as ascertained by the oscillations, was also found to have increased about one forty-eighth part. A more detailed account of these observations will be found in the Appendix. The rise and fall of the tide was only four feet, its velocity half a mile, and the flood setting to the north. In the meantime I was employed in observing the deviation on each point of the compass, and found it to be the same in amount which it had been since the 4th of August, when the variation was 90° , and the dip of the needle $84^{\circ} 52' 6''$. This observation is peculiarly important in any theory that may be adopted respecting the deviation of the needle, as it proves that it is not necessarily dependant on the quantity of horizontal force exerted by the needle; since when that force had materially diminished, the quantity and force

August 30. Lat. $76^{\circ} 46\frac{1}{2}'$. Long. $75^{\circ} 21\frac{1}{2}'$. Var. 103° W.

of the deviating tendency remained unaltered.

Whilst we were thus employed, Lieutenant Robertson, and other officers, were stationed at the mast-head to look out for the direction of the coast; and they made their reports that they were satisfied they had seen the land completely round this bay at different times; as did also the officers of the *Alexander*, who were at the mast-head of that ship at the same time.

Whatever my own notions respecting the real nature of the space passed over in the foregoing run, from Cape Saumarez to Cape Clarence, might have been, and whatever my own expectations were, as to the probability of an opening in this direction; the ardour existing at home for the discovery of a north-west passage, and the confidence with which the supposed situation of such an opening has been transferred to one spot as fast as it was found not to exist in another, render it necessary to recapitulate the circumstances which disprove

August 21. Lat. $76^{\circ} 52\frac{1}{2}'$. Long. $76^{\circ} 52\frac{1}{2}'$. Var. 105° W.

its existence in this place, which forms the northernmost extremity of Baffin's Bay.

On the 19th of August, at fifty minutes past midnight, the ship being nearly on the seventy-seventh degree of north latitude, ten leagues to the westward of Cape Saumarez, which forms the east side and the bottom of this bay, the land was distinctly seen. On the 20th and 21st, when off Cape Clarence, at the distance of six leagues, the land which forms the west side, and the bottom of this bay, was also distinctly seen by the above-mentioned officers and myself, and by these two observations the coast is determined to be connected all round. At each of these periods this immense bay was observed to be covered with field-ice; besides which, a vast chain of large icebergs was seen to extend across it; these were apparently aground, and had probably been driven on shore there by southerly gales. It was also observed, that the tide rose and fell only four feet, and that the streams was scarcely perceptible.

From these several considerations it ap-

August 21. Lat. $76^{\circ} 52\frac{1}{2}'$. Long. $76^{\circ} 54\frac{1}{2}'$.

pears perfectly certain that the land is here continuous, and that there is no opening at the northernmost part of Baffin's Bay from Hackluit's Island to Cape Clarence. Even if it be imagined that some narrow Strait may exist through these mountains, it is evident, that it must for ever be unnavigable, and that there is not even a chance of ascertaining its existence, since all approach to the bottoms of these bays is prevented by the ice which fills them to so great a depth, and appears never to have moved from its station.

Being thus satisfied that there could be no further inducement to continue longer in this place, and it being necessary to husband the little time yet remaining, for the work which was still to be done, I ordered accurate bearings of the different headlands to be taken, and, having named the remarkable cape forming the west side of the bay, after the Duke of Clarence, in commemoration of the birth-day of his Royal Highness, I shaped my course, on the morning

August 21. Lat. 76° 33'. Long. 78° 34'. Var. 108° W

of the 21st, towards the next opening which appeared in view to the westward.

The land forming Cape Clarence is exceedingly high, the mountains peaked, and generally covered with snow, the tops of them appearing above the clouds; the precipices only being black, apparently from their being too perpendicular for the snow to rest upon. An easterly breeze springing up, we proceeded to explore the opening in sight, which answered to the description of Alderman Jones's Sound, as given by Baffin, who discovered it.

We ran nine miles among very heavy ice until noon, when a thick fog coming on, we were obliged to take shelter under a large iceberg.

Since our leaving Wolstenholme Island, the ice had assumed a very different character from any we had before seen; it had generally a green tint, and appeared to have been a long time at sea, without, however, being in a state of decay: it was in large masses of irregular forms, which appeared as if they had been heaped upon each other

August 21. Lat. $76^{\circ} 52\frac{1}{2}'$. Long. $76^{\circ} 54\frac{1}{2}'$. Var. 10° W.

by some tremendous force, and then frozen together. Any communication with the land thus became impossible, nor is it likely that this coast will be found accessible to future navigators. The land reaching from this Cape towards the west, presented some deep ravines, which were filled with ice extending far into the sea, in the manner before described; there was no appearance of vegetation, nor did the country appear habitable; very few birds were seen, and no whales, but we found seals in abundance.

Several copper cylinders, containing an account of our proceedings, were left on the floating ice, within these forty-eight hours; we sounded here in one hundred and ten fathoms, and completed our water. During the late fogs the ropes were covered with ice, which rendered every evolution difficult, and, at the same time, prevented every kind of observation. Here I had an opportunity of correcting some differences between the Alexander's reckoning and the Isabella's; and it appeared probable that these differences had been produced by

August 22. Lat. $76^{\circ} 32'$. Long. $77^{\circ} 04'$. Var. $106^{\circ} 35'$ W.

some material changes in the deviation of the former. I nevertheless ordered, that the officers of the watch in the *Alexander* should write the rough log as soon as their watches were ended; and mentioning every particular, sign their initials opposite the hour, in the manner that was practised in the *Isabella*; as those differences might have arisen from mistakes in copying the log.

August 22.—A very thick fog, attended by a calm, continued until a few minutes before noon; when the sun appeared, and we had an excellent meridian altitude on the iceberg, by reflection, which gave the latitude $76^{\circ} 30'$ N.; completely proving that the reckoning of the *Isabella* was correct, and that the northernmost point which the ship had reached was $76^{\circ} 55'$ N., at which time she was in longitude $74^{\circ} 56' 44''$ W. At half past three we had good altitudes for time, and found our longitude to be $77^{\circ} 4' 6''$ W.; and, soon after, we had azimuths, which gave the variation 106° W. The *Alexander's* observations agreeing with

August 23. Lat. $76^{\circ} 37'$. Long. $77^{\circ} 04'$.

those of the *Isabella*, it was also proved that the former ship had been much further north than was deduced from her reckoning, between the noon of the 19th, and that of the 20th; and by working her courses back from this latitude and longitude, it appeared, that, at fifty minutes past midnight, on the 19th, we had been beyond the seventy-seventh degree. Observations were also made this day on the magnetic dip, by Jones's instrument, and they were found to agree with Mr. Browne's; it having been discovered, that the correction for error, marked on the former, ought to have been $4'$ instead of 4° , which was the quantity inadvertently given as required for adjustment: they both gave the dip at $86^{\circ} 05'$.

August 23.—The weather on this day was not foggy near the ships, but it was so thick all round the horizon, as to prevent our seeing the land, or the situation of the ice, which surrounded us in every direction. The iceberg to which we were moored, had drifted during the night into ninety-eight fathoms, with a stony bottom. The wind

August 23. Lat. $76^{\circ} 37'$. Long. $77^{\circ} 04'$. Var. $107^{\circ} 56'$ W.

being too light to make any progress in beating to windward, I could not get under weigh; but, soon after Divine service, a breeze sprung up from the southward, when the ships were cast loose, and the sails set. The sun's meridian altitude was observed on the iceberg, and the latitude found to be $76^{\circ} 37'$ N., the iceberg having drifted three miles to the northward.

We now stood for the Sound which we had seen on the 21st, tacking and bearing up occasionally to avoid the ice, which was generally from six to twelve feet thick, very uneven, and in pieces of various shapes; we found it impossible to keep clear of it, and the ship unavoidably received some severe shocks, but fortunately suffered no damage. Towards the evening we successively made out the north and south points of the land across the bottom of this bay, or inlet, which agreed with Baffin's description of Jones's Sound. At midnight, a ridge of very high mountains was seen to extend nearly across the bottom of it, joining another from the south, which was not

August 24. Lat. 76° 15'. Long. 78° 18'.

quite so high. The bay was completely blocked with ice, in which were some very large icebergs; and from the points of land, glaciers of solid ice were seen extending for many miles into the sea. It was evident that there could be no passage in that direction, and we, therefore, began to beat to the southward, having named the above-mentioned Capes Hardwicke and Caledon, after those distinguished noblemen. At eleven P. M., a piece of fir wood was picked up: it contained nails, and the marks of the plane and adze were also evident. This seems to prove that it must have drifted up the bay, probably by the strong southerly winds. Many seals were seen, and the tracks of bears were visible on the ice in many places.

August 24. — The weather continued clear until four P. M., and we had a still better view of the land about Jones's Sound. We, therefore, stood towards the southern point, where there appeared some chance of nearing the land; but, after beating for some time, it fell calm, and soon

Sept. 21. Lat. 71° E. Long. 71° E.

afterwards a thick fog obliged us to move fast, being unable to see the ranges through the ice, which were constantly changing, and, after some time the Alexander joined us. This position was remarkable for variety in the depths of water, and in the quality of the substances at the bottom. When we made fast we had seventy-eight fathoms: soon afterwards we had one hundred and sixty, then eighty-five, two hundred, one hundred and fifty, and one hundred and eighty-five, within a short time of each other. In the shallowest water we had muddy sand and shells; at one time a small piece of coral; at eighty-five fathoms we had rocky bottom; at one hundred and sixty, stones; at two hundred, mud; and at one hundred and fifty, mixed blue and grey clay, with worms. A great number of seals were seen, together with the traces of a bear, of an extraordinary size; the marks of his fore paw measuring fifteen inches by fourteen, and his hind paw twenty by seven. We had no observations this day, on account of the

August 25. Lat. $76^{\circ} 10'$. Long. $78^{\circ} 30'$. Var. $109^{\circ} 58\frac{1}{2}'$ W.

thick fog, and the ice was too unsteady for the dipping needle; but the night was remarkable for its having been the first on which the sun had been observed to set since the 7th of June; thus terminating a day, which consisted of one thousand eight hundred and seventy-two hours, and giving us warning of the approach of a long and dreary winter.

August 25.—About midnight it cleared up, when we again saw the land, and had, for the third time, a view of Jones's Sound, and of a bay to the southward of it, which I named Lady Anne Hope's Bay. The cape to the north was also named Cape Lindsay; and the mountains at the bottom, which were the highest we had yet seen, were named Barnard's Mountains. As it became quite calm, all boats were employed in towing; and, passing through much heavy ice, we came to some very large icebergs, which lay aground on the edge of a bank, on which we found fifty-seven fathoms water. We were now about seven or eight miles from the land, and I made

August 25. Lat. $76^{\circ} 10'$. Long. $78^{\circ} 30'$. Var. $109^{\circ} 58\frac{1}{2}'$ W.

fast to an iceberg in order to try the magnetic dip and force.

The fog was extremely thick on the surface of the sea, but at the mast-head, and at the top of the iceberg, it was perfectly clear, so as to admit of good observations from them. This berg was one hundred and four feet high, six hundred feet long, and four hundred feet broad; the dip here was found to have decreased to 86° .

About eight, a light breeze sprung up, but it was directly against us, and nothing could be gained by casting off among so much ice; we, therefore, remained at our moorings. We sounded in sixty fathoms, and at several casts obtained stones and shells, at others, sand, mud, and worms; the ice, which drew much water, passed the berg to the southward, but the small pieces drifted to the northward. It is worthy of remark, that the icebergs here were only three-fourths under water, while those to the south were five-sixths. As we had reason to think that we were in the N.W. corner of the bay, I caused a flag-

August 26. Lat. $76^{\circ} 04'$. Long. $78^{\circ} 28'$. Var. 110° W.

staff to be erected, at the bottom of which a copper cylinder, containing the usual remarks, was buried, while another was thrown overboard. The rise and fall of the tide was observed this day (the 25th of the moon) to be ten inches; but the direction or velocity of the stream was not perceptible.

August 26. — At half-past six, the sun having considerable power over the fog, we could see about a cable's length from the ships; and I thought it advisable to attempt getting a little further to the southward, as we had seen the land as far as S. by E.; we therefore made sail, keeping company with the *Alexander* by musquetry. At intervals the weather cleared sufficient to let us see that we were within six miles of the land, which had now decidedly taken a southerly direction. We kept the lead going, and had various soundings; when the water was under sixty fathoms we had rocky bottom, between sixty and seventy fathoms we had coral, and above that mud; the shoalest water we had was forty-five,

August 26. Lat. $76^{\circ} 04'$. Long. $78^{\circ} 38'$. Var. 110° W.

and the deepest eighty-five fathoms. We discovered this to be a bank extending along the land, in a north and south direction, at the distance of five or six leagues: many icebergs were aground on it, and a great number of smaller pieces of ice were floating round them. On one of these a very large piece of granite was seen, and I sent a boat to tow it alongside, intending to hoist it in, but unfortunately it slipped out of the slings and sunk. Some specimens of this and other stones were, however, preserved by both ships.

A party was this day sent to an iceberg, and the variation was obtained by azimuth. It was also determined that the point of change in the deviation, as well as its amount, continued the same as it was found to be on the 19th. By a meridian altitude of the sun, we found that we had made four miles southing in the twenty-four hours. It was evident, that the nearer we approached the land the ice was the more compact; and, being of the nature before described, it was impossible to communicate

August 26. Lat. $76^{\circ} 04'$. Long. $78^{\circ} 28'$. Var. 110° W.

with the shore ; I therefore thought it unadvisable to attempt to penetrate nearer, when it was certain that nothing could be gained by it. On this ice the tracks of bears were every where visible, but none of these animals were discovered. Several birds of the peterel kind were shot and preserved. Towards evening the land to the southward was seen as far as the S. S. W. point of the compass. On this coast numerous and immense glaciers of ice were seen, extending into the sea for several miles. Off the southernmost point, a very remarkable conical rock, with a small one near it, of similar form, was seen ; and, when abreast of it, a large bay, which was filled by a glacier, extending quite across it, was seen ; this I named Cobourg Bay ; and the headland before mentioned, Cape Leopold, in compliment to His Royal Highness the Prince Leopold. The remarkable rock near it was named Princess Charlotte's Monument, after our lamented Princess ; we found a reef extending from it towards the land, but the shore was here

August 26. Lat. $76^{\circ} 04'$. Long. $78^{\circ} 28'$. Var. 110° W.

so completely skirted by ice that it was impossible to approach it. We therefore took the only observations in our power, and determining its latitude, proceeded on our voyage.

CHAP. X.

FURTHER PROGRESS TO THE SOUTHWARD. — FIND AN OPEN SEA. — DISCOVER, AND GIVE NAMES TO, VARIOUS HEADLANDS AND A BAY. — ARRIVE AT LANCASTER SOUND, AND EXPLORE IT. — TAKE POSSESSION OF THE COUNTRY. — EXTRAORDINARY VARIATION OF THE COMPASS. — CONTINUE EXPLORING THE COAST TO THE SOUTHWARD.

ON the 27th of August, we continued our course to the southward, and, by the continuation of the easterly winds, were enabled to make a good stretch along the land, which I distinctly saw as far as to the S.W. In passing Cobourg Bay, we discovered that it was completely occupied by an impenetrable glacier of ice, and the chain of mountains, which has been already described, was seen to extend to the southward without interruption. The Cape which formed the southern boundary of Cobourg Bay was named after Captain Horsburg, and from thence the land took a

August 27. Lat. $75^{\circ} 40'$. Long. $77^{\circ} 08'$.

direction due south, when a very bold and high promontory was seen about six miles to the southward, which was named Cape Cockburn, in compliment to Sir George, one of the Lords of the Admiralty. This Cape is situated in latitude $74^{\circ} 49'$ and longitude $78^{\circ} 45'$ W. It resembles the coast near to Cape Clarence, being completely covered with snow, except where the precipices are perpendicular. The valleys and ravines were filled with ice, and the coast rendered totally inaccessible by surrounding masses, similar to those already described.

The wind having increased, we out-ran the Alexander, and explored a spacious bay to the south of Cape Cockburn, which I named Banks Bay, after the President of the Royal Society.

This bay, like the last, was occupied by ice, and surrounded by a continuation of the mountains already mentioned. Here I was obliged to shorten sail for the Alexander, the weather becoming thick; and we lost sight of the land, having made twenty-

August 27. Lat. 75° 40'. Long. 77° 08'.

five miles southing. When she came up we again made sail, and having proceeded about twelve miles further, which I calculated would bring me as far south as I had distinctly seen the land and determined its situation, I shortened sail; and endeavoured, under the topsails, to maintain our position, judging it to be the most favourable one for pushing on in any direction that circumstances might point out. Our progress, which, during the last twenty-four hours, was thirty-six miles in distance, was accomplished with considerable difficulty, from the innumerable masses of ice with which we were surrounded. Sometimes we were obliged to bear up, and, by giving the ship fresh way through the water, endeavour to separate the masses of ice which lay in streams across our course. In this we occasionally succeeded, and the *Isabella* being larger and a better sailer than the *Alexander*, she had, as in the whole of our previous progress through the ice, a decided advantage in a breeze. But this operation often failed, and we were then

August 27. Lat. 75° 45'. Long. 77° 45'.

obliged to have recourse to warping hawsers, in order to heave the ship through, or extricate her from the situation into which she had been thrown; at other times we were obliged to make several tacks to weather certain large masses, or to enable us to fetch the place most likely to be penetrated.

In all these manoeuvres, the greatest care is requisite to avoid the *lunget*, or projections of the ice under water, which are often at the depth of six or eight feet. For the purpose of observing them, experienced seamen are placed on each bow, who, on discovering the danger by the green appearance of the water, call out *Starboard*, or *Port*, as the occasion may require, thereby directing the helmsman to steer clear of them. Although the leading ship has in these cases some disadvantages in forcing through the ice, being the first to break it, and thereby to make a passage, yet the next has difficulties, which more than balance the advantage of sailing through a breach already made; the ice

August 27. Lat. 75° 40'. Long. 77° 06'.

which had been displaced, rushing towards the wake with an accelerated motion, so as to encounter and impede the vessel that follows. The unavoidable detention arising from these circumstances, and the inferiority of the *Alexander* in sailing, were not, however, more than sufficient to give me an opportunity of exploring the coast as I passed it; by enabling me, without loss of time, to stand in whenever it was clear, so as to make the necessary observations.

The spot at which we had now arrived was more clear of ice than any place we had seen since we left Cape Clarence, and we observed in it a little swell from the south-eastward. The fog being excessively thick, and the ropes covered with ice, we had no chance of being able to penetrate any further if we had desired it; we therefore continued standing off and on, one hour on each tack, in hopes of the return of clear weather. This, however, did not take place, and we were overtaken by darkness; the length of the nights having very considerably increased, both by our progress

August 28. Lat. $75^{\circ} 27'$. Long. $77^{\circ} 54'$.

to the south, and by the decrease in the sun's declination. In this situation we kept company with the *Alexander* by musquetry, until about midnight, when a large pack of ice drifted upon us, and, closing up our pool, obliged us to stand to the eastward. This day, which was the last of the sun and moon's being in distance, closed, and completed our disappointment in not getting a lunar observation for the whole quarter, a matter of much importance to us. We sounded here, but had no ground in three hundred fathoms, and there was too much drift to obtain soundings in deeper water. Two bottles, containing an account of our proceedings, were thrown over-board in latitude $75^{\circ} 24'$, and longitude $78^{\circ} 21'$, about one P. M.

August 28.—During the night we had snow and thick rain, and were much annoyed with pack ice; at one time we were in much danger of being beset, but we carried sail, and forced ourselves to the eastward, in which direction clear water was discerned at day-light. At three we

August 28. Lat. 75° 27'. Long. 77° 58'.

succeeded in getting completely clear of ice, and once more found ourselves in the open sea; a considerable swell from the S. S. E. in which direction we had the wind, was also observed. The thick rain continued until five A. M. when it gradually ceased, being succeeded by cloudy weather and very little wind. The body of the packed ice was seen to the true north, extending from S. W. to E. At noon we had an indifferent observation and made several tacks to weather the ice, but made very little way, in consequence of the swell. At length we succeeded, when a light breeze carried us on five leagues towards the S. W. Between three and four the weather cleared up, and gave us a view of the land, which consisted of mountains, being the highest we had yet seen: they were estimated at four thousand feet. The nearest land to us was that which formed the southern point of Banks Bay, to which I gave the name of Cape Cunningham, after my old friend and commander, the Commissioner of His Majesty's Navy at Wool-

August 28. Lat. 75° 27'. Long. 77° 52'.

wich; the mountains were also named Cuninghame Mountains, in compliment to some other friends of that name. The southern extremity of the land, which bore S. S. E., I named Cape Charlotte; it is in latitude 74° 32' N., and longitude 79° 30' W. This land could not be approached nearer than five leagues, on account of the packed ice; but, on the other hand, from south to north, nothing but clear water was to be seen; the ice seeming to have been packed into the bottom of Baffin's Bay by the southerly gales. The ship continued to beat along the coast in a direction nearly on the meridian, and we proceeded slowly to the southward. The mountains from Cape Cunningham, towards the south, now appeared to be only partially covered with snow; and, even at the very tops of them, which were visible above the clouds, black rocks were plainly seen. Their sides, as they appeared from the sea, were almost clear of snow; and, for this short distance, the country appeared as habitable as that

August 29. Lat. $74^{\circ} 59'$. Long. $78^{\circ} 01\frac{1}{2}'$. Var. 115° W.

part of the opposite coast which we found to be actually inhabited.

We sounded occasionally, and had regularly two hundred and forty fathoms; and, by means of the deep-sea clammers, obtained a quantity of mud and clay, in which worms were found. At one cast a piece of granite also was brought up, which weighed more than a pound. Towards midnight a very thick fog came on, but we continued our course to the southward, in the direction of the furthest land we had seen.

August 29.—The fog still continued, and we proceeded as before, keeping a good look-out, and sounding whenever we got far enough a-head of the *Alexander* not to detain her by that operation, in depths varying from two hundred to two hundred and forty fathoms. At noon the fog cleared away, and, at four, we got to a considerable distance from the edge of the ice, when the temperature of the water on the surface was found to be 36° : this being an increase of 4° , was considered to be the

August 30. Lat. $74^{\circ} 19\frac{1}{2}'$. Long. $78^{\circ} 35'$. Var. 110° W.

natural consequences of the absence of ice, and of our advance to the south. The land to the southward was seen, but not perfectly distinct until $5^h 30^m$; when the fog, after being very thick for a short interval, cleared entirely away, and we saw it from south to north-west: the mountains near Cape Charlotte bore west. We shortened sail for the Alexander, after we had made out the land, and sounded in two hundred and ten fathoms. Between Cape Charlotte and the land, which bore south, a wide opening appeared; but the wind shifting to the west, I could not stand in to explore it, and therefore stood to the southward; but, at ten P.M., the wind changed to the south, when we tacked and stood in under all sail. The swell continued from the S.S.E., and, at midnight, the weather was very thick and foggy.

August 30. — The weather being still thick and cloudy, we continued to steer so as to gain the middle of the opening, making about a south by west course; but the wind was light and variable, and not

August 20. Lat. $74^{\circ} 19\frac{1}{2}'$. Long. $78^{\circ} 55'$. Var. 110° W.

much progress was made. About four we had a shower of rain, and soon afterwards the fog clearing away a little, we saw two icebergs at a considerable distance; we then altered our course, in the manner most likely to answer for getting to the westward, and carried all sail. About ten we saw the land which forms the northern side of the opening, extending from west to north in a chain of high mountains covered with snow. Soon afterwards the south side of this opening was discovered, extending from S.W. to S.E., forming also a chain of very high mountains. In the space between west and south-west, there appeared a yellow sky, but no land was seen, nor was there any ice on the water, except a few icebergs; the opening, therefore, took the appearance of a channel, the entrance of which was judged to be forty-five miles wide; the land on the north side lying in an E.N.E. and W.S.W. direction, and on the south side, nearly east and west.

Having had good observations for time, and a meridian altitude of the sun, the

August 30. Lat. $74^{\circ} 19\frac{1}{2}'$. Long. $78^{\circ} 35'$. Var. 110° W.

latitude and longitude were accurately determined; and, at the same time, the bearings of the land were taken and registered. Divine service was performed; and, in the afternoon, the wind having obliged us to stand to the south side, we had an excellent view of the most magnificent chain of mountains which I had ever beheld. This chain, and the cape which terminates it and forms the eastern extremity of the land on that side of the channel, was named after Sir Byam Martin, in compliment to my most esteemed friend the Comptroller of His Majesty's Navy; and the various capes and bays in this tract of land, were also named after his amiable family and nearest relatives. These mountains, which take their rise from the sea, at Cape Byam Martin on the east, and from a low plain near Catherine's Bay, on the west, terminate in sharp lofty peaks; and the rocks which form them being, on one side or the other, and often on every side, too perpendicular for the snow to rest upon, they are distinctly seen above it, displaying very re-

August 30. Lat. $74^{\circ} 19\frac{1}{2}'$. Long. $78^{\circ} 33'$. Var. 110° W.

markable forms. In one place, nearly between Cape Fanshawe and Elizabeth's Bay, two rocks, resembling human figures of a gigantic size in a sitting posture, were seen on the highest peak; and, as it was considerably above the clouds, their appearance was both extraordinary and interesting.

The snow appeared to be deep in the valleys of the interior, but the ravines next the sea were only partly filled with it, and the precipices near the foot of the mountains were perfectly bare. The low and level tract of land which has already been described as forming Catherine's Bay, was also perfectly clear of snow, and was to all appearance the most habitable situation on the coast. The rest of the day was spent in beating to the westward, all sail was carried, and every advantage taken of the changes in the direction and strength of the wind. As the evening closed the wind died away, the weather became mild and warm, the water much smoother, and the atmosphere clear and serene. The

Aug. 31. Noon. Lat. $74^{\circ} 03'$. Long. $80^{\circ} 37'$. Var. 114° W.

mountains on each side of the Strait, being clear of clouds, displayed various beautiful tints. For the first time we discovered that the land extended from the south two-thirds across this apparent Strait, but the fog which continually occupied that quarter, obscured its real figure: in this position we had good observations for time, and the dip-sector and Kater's altitude instrument were used: the temperature of the water at four o'clock was $36\frac{1}{2}$, exactly in the centre of the mouth of the Strait. The close of this evening was remarkable for the appearance of Capella, the first star we had seen for twelve weeks.

During this day much interest was excited on board by the appearance of this Strait; the general opinion, however, was that it was only an inlet. The land was partially seen extending across, the yellow sky was perceptible; and, as we advanced, the temperature of the water began to decrease. The mast-head and cabin-turret was crowded with those who were much

Aug. 31. At 6 P.M. Lat. $74^{\circ} 03'$. Long. $80^{\circ} 37'$. Var. 114° W.

anxious, but nothing was finally decided at the setting of the sun.

Soon after midnight the wind began to shift, and the ship came gradually up, enabling us to stand directly up the bay; I, therefore, made all sail, and left the *Alexander* considerably astern. At a little before four o'clock, A.M., the land was seen at the bottom of the inlet by the officers of the watch; but before I got upon deck, a space of about seven degrees of the compass was obscured by the fog. The land which I then saw was a high ridge of mountains, extending directly across the bottom of the inlet. This chain appeared extremely high in the centre, and those towards the north had, at times, the appearance of islands, being insulated by the fog at their bases. Although a passage in this direction appeared hopeless, I was determined to explore it completely, as the wind was favourable; and, therefore, continued all sail. At eight the wind fell a little, and the *Alexander* being far astern, I sounded and found six hundred and

Aug. 31. At 6 P.M. Lat. $74^{\circ}05'$. Long. $81^{\circ}28'$. Var. 114° W.

seventy-four fathoms, with a soft muddy bottom. There was, however, no current, and the temperature of the mud was $29\frac{1}{2}^{\circ}$. Soon after this the breeze freshened and we carried all sail, leaving the *Alexander* and steering directly up the bay. The weather was now variable, being alternately cloudy and clear at intervals. Mr. Beverley, who was the most sanguine, went up to the crow's-nest ; and, at twelve reported to me, that before it became thick, he had seen the land across the bay, except for a very short space. The land to the S. E. was very distinct, and I had an excellent transit and bearing of Cape Byam Martin and Cape Fanshawe, with the ship's head on the point of the change, for the purpose of determining the variation, should no azimuths be obtained. Although all hopes were given up, even by the most sanguine, that a passage existed, and the weather continued thick, I determined to stand higher up, and put into any harbour I might discover, for the purpose of making magnetical observations. Here I felt the

Aug. 31. At 6 P.M. Lat. $74^{\circ} 03'$. Long. $81^{\circ} 28'$. Var. 114° W.

want of a consort, which I could employ to explore a coast, or discover a harbour; the *Alexander* sailing so badly, and being so leewardly, that she could not safely be employed on such a service. During this day we shortened sail several times, to prevent our losing sight of her altogether. As we stood up the bay two capes on the south side were discovered, one of which I named after the Earl of Liverpool: the land which formed the boundary on one side of Catherine's Bay, was named Cape Hay. On the north side a remarkable conical rock, the only island on this part of the coast, was discovered, and named Sir George Hope's Monument*, after my lamented friend, one of the Lords of the Admiralty, who had recommended me for the command of this expedition, and whose signature of my orders on his death-bed, was the last act of his valuable life.

* The ice was distinctly seen to extend from this island to the land, distant 35 miles, and a view of it was taken at 10 A.M. on the 31st August by Mr. J. Bushnan, which was sent to the Admiralty on my arrival, and is now in my possession.

Aug. 31. At 6 P. M. Lat. 74° 03'. Long. 81° 28'. Var. 114° W.

About one, the *Alexander* being nearly out of sight to the eastward, we hove to for half an hour, to let her come up a little; and, at half past one, she being within six or seven miles of us, we again made all sail. I intended to have sounded during this interval, but found the south-east swell had so much increased and the drift so great, that it was impracticable.

At half past two, (when I went off deck to dinner,) there were some hopes of its clearing, and I left orders to be called on the appearance of land or ice a-head. At three, the officer of the watch, who was relieved by Mr. Lewis, reported, on his coming into the cabin, that there was some appearance of its clearing at the bottom of the bay; I immediately, therefore, went on deck, and, soon after, it completely cleared for about ten minutes, when I distinctly saw the land round the bottom of the bay, forming a chain of mountains connected with those which extended along the north and south sides. This land appeared to be at the distance of eight leagues; and Mr.

Aug. 31. At 6 P. M. Lat. $74^{\circ} 03'$. Long. $81^{\circ} 28'$. Var. 114° W.

Lewis, the master, and James Haig, leading man, being sent for, they took its bearings, which were inserted in the log; the water on the surface was at the temperature of 34° . At this moment I also saw a continuity of ice, at the distance of seven miles, extending from one side of the bay to the other, between the nearest cape to the north, which I named after Sir George Warrender, and that to the south, which was named after Viscount Castlereagh. The mountains, which occupied the centre, in a north and south direction, were named Croker's Mountains, after the Secretary to the Admiralty. The south-west corner, which formed a spacious bay, completely occupied by ice, was named Barrow's Bay; it is bounded on the south by Cape Castlereagh, and on the north by Cape Rosamond, which is a head-land, that projects eastward from the high land in the centre. The north corner, which was the last I had made out, was a deep inlet; and as it answered exactly to the latitude given by Baffin of Lancaster Sound, I have no doubt that it was the same, and consider it a most

Aug. 31. At 6 P. M. Lat. $74^{\circ} 05'$. Long. $41^{\circ} 24'$ Var. 11 ϕ W

remarkable instance of the accuracy of that able navigator. At a quarter past three, the weather again became thick and unsettled; and being now perfectly satisfied that there was no passage in this direction, nor any harbour into which I could enter for the purpose of making magnetical observations, I tacked to join the *Alexander*, which was at the distance of eight miles. Having joined her a little after four, we stood to the south-eastward; but the swell was so great, and the wind so baffling, that the ship's head could not be kept against the sea; this swell was probably increased from our proximity to the margin of the ice, and it would have been imprudent to have stood nearer to it under such circumstances. About six it fell nearly calm for a short time, and we sounded with the deep-sea clammus, which brought up a quantity of mud, in which were five worms of a species that had not been seen before. There were only six hundred and fifty fathoms of line out, consequently there could not be more than that depth of water; but there

Aug. 31. At 6 P.M. Lat. $74^{\circ} 03'$. Long. $81^{\circ} 28'$. Var. 114° W.

might have been much less, which was probably the case, as the swell was so great, that it was uncertain, after two hundred fathoms, when the machine reached the bottom. The temperature of the mud was 29° , no current was found, and neither the officers, nor myself, considered the great depth of water any indication of a passage; having, on the contrary, always found that in bays near the land, on the opposite* coast, the water was deepest: this is not uncommon, as it is the case over all the coast of Lapland. At Kola there are no soundings for several leagues up that river, which is only half a league wide, whereas in the entrance to the White Sea, there are only nine fathoms. The same may be said of some parts of Norway and the Baltic. We remained, however, in this position until near dark, and the weather appearing more unsettled, it became advisable to stand out of this dangerous inlet, in which we were embayed, being above eighty miles within it. About eight a strong breeze came on, and

* Prince Regent's Bay, Three-Islands, and North-East Bay, &c.

Sept. 1. Lat. $73^{\circ} 37'$. Long. $77^{\circ} 25'$. Var. 110° W.

it was so dark and thick that the Alexander could not be seen. The motion of the ship being considerable, the whole of the compasses ceased to act; and there being no stars or land in sight, the only method of ascertaining the direction of the breeze, was by firing guns and muskets to the Alexander: her bearings being known and being answered by guns, it was found that the breeze had sprung up from the southward, and our course was shaped accordingly.

At ten o'clock, however, the weather cleared, and we saw Capella, by which we steered; but as the water became smoother, in consequence of the south-west wind, the compasses began again to traverse and we continued our course towards Cape Byam Martin. During the middle watch the Alexander was hailed, and found to be steering the same course by compass as the Isabella, namely, S. W., on which point the two ships had, of course, the same deviation.

Sept. 1.—At four, A.M., the above-mentioned Cape was in sight, and we steered di-

Sept. 1. Lat. $73^{\circ} 37'$. Long. $77^{\circ} 25'$. Var. 110° W.

rectly for it ; but, in approaching it, we took up the whole of the forenoon, which was, at intervals, foggy. Towards noon, preparations were made for landing in a small bay, to the northward of Cape Byam Martin, into which the ship could just fetch ; and the signal to prepare two boats for exploring was made to the *Alexander*, which had got pretty near us. When within two leagues of this bay it fell calm ; and, at one, the boats were despatched, under the orders of Mr. Skene and Mr. Ross, to take possession of the country. A party was also sent on shore to collect specimens of natural history ; and I directed Lieutenant Parry, as soon as he came on board, to follow, and take the command, and to obtain, if possible, some observations for ascertaining the variation of the compass. They landed about two o'clock, and having taken possession of the country, in the name and on behalf of His Britannic Majesty, with the usual forms, a flag-staff was erected ; and, at its foot, a bottle, containing the proceedings of our ships, was buried on the summit of a conical mount,

Sept. 1. Lat. $75^{\circ} 57'$. Long. $77^{\circ} 25'$. Var. 110° W.

near the centre of the bay. In the mean time I was employed on board, in sounding and in trying the current and the temperature of the water. It being perfectly calm and smooth, I had an excellent opportunity of determining these important objects. Soundings were obtained correctly in one thousand fathoms, consisting of soft mud, in which there were worms; and, entangled on the sounding line, at the depth of eight hundred fathoms, was found a beautiful caput medusæ; these were carefully preserved, and will be found described in the Appendix. To observe the current, the line was again dropped over, and the transit bearings of two objects on the land set; these, however, did not vary in the least, nor did we find any current by the line. Two large icebergs were seen off the Cape and set by the land, but they did not alter their position except in a circular manner, thereby proving also that no under current existed. The temperature of the water on the surface was at $34\frac{1}{2}^{\circ}$, and at eighty fathoms 32° ; but as our self-registering thermometer had been broken, it could not be

Sept. 1. Lat. 73° 37'. Long. 77° 25'. Var. 110° W.

ascertained on board of the *Isabella* at a greater depth; it was tried, however, at two hundred and fifty fathoms in the *Alexander*, and found to be 29½°. These objects being obtained, views were taken of the land; and, at five, a light breeze springing up from the eastward, I stood into the bay to pick up the boats; at the distance of two miles from the shore, we hove to and sounded in four hundred and fifty fathoms, the clamms bringing up some stones and gravel, and two small shrimps.

At six the boats returned with many specimens of the animal, vegetable, and mineral kingdoms. A white bear had been seen and wounded, but escaped by swimming to an iceberg. The skeleton of a whale was found about five hundred yards above high-water mark, and two small pieces of wood were also found at a still greater distance from the sea. No traces of any inhabitants were seen, and the circumstance of the bones of the whale being entire, seems to strengthen the supposition that this part of the country was not inhabited. The deer, fox, ermine, and white hare,

Sept. 1. Lat. $73^{\circ} 37'$. Long. $77^{\circ} 25'$. Var. 110° W.

were either seen, or proved to be in abundance by their tracks, and specimens of the two latter were brought on board. It appeared from the reports of the officers, that they landed on a shingle beach, at the mouth of a small river, which was described to be one hundred feet wide, and the water two feet deep: the bed was twelve feet deep, and several pieces of birch bark were found in it; at a little distance another smaller river was discovered. The valleys from which these proceed were found to be covered with verdure and wild flowers, the mountains on each side were very high, and covered with snow. On the S.E. side of the valley there was a small plain, which was also covered with verdure, and the scenery, altogether, was much more pleasing than any that had been seen during the voyage. The rise and fall of tide was represented to be by some five, by others four, feet, but the stream was not perceptible; the water was deep close to the shore, and there appeared to be no anchoring ground. The variation was ob-

Sept. 1. Lat. $73^{\circ} 37'$. Long. $77^{\circ} 25'$. Var. 110° W.

served to be 110° west, and the transit bearings of Cape Fanshawe, and the Point near Cape Byam Martin, which were taken yesterday, taken to day from the opposite bearing; by which it was determined, that the variation where the ship was at noon, on the 31st, was about 114° west.

The boats being hoisted up, and the breeze freshening, we made sail, and stood to the N.E., having given the names of Possession Bay and Possession Mount to the above-mentioned places.

It will not here be out of place to point out the parts in my official Instructions wherein I am directed to pay particular attention to the currents, and to be guided by them; and also to the part which recommends me to look for the north-east point of America, or, in other words, the north-west passage, about the seventy-second degree of latitude. As it was fully proved that no current existed in this inlet which we had just explored, or to the northward of it, it naturally followed that I should have supposed myself still to the

Sept. 1. Lat. $75^{\circ} 37'$. Long. $77^{\circ} 25'$. Var. 110° W.

northward of the current, which had been so confidently asserted to exist; and that this inlet was not, therefore, the place to persevere in forcing a passage, but that there was reason to expect it would be found further south. My orders "to stand well to the north," had already been fully obeyed, and no current had been found; if "a current of some force" did exist, as from the best "authorities" we had reason to believe was the fact, it could be no where but to the southward of this latitude. As, in my Instructions, I am directed to leave the ice about the 15th or 20th of September, or at latest the 1st of October, I had only one month left for my expedition, in which month the winter was early and, according to a late observation, not more than two days more winter than it could be expected. It was therefore the propriety to start as early as possible, eight days remaining to complete the distance of Baffin's Bay, a distance of about one hundred miles. It was expected that the distance would be completed in about one hundred miles.

Sept. 1. Lat. $73^{\circ} 37'$. Long. $77^{\circ} 25'$. Var. 110° W.

a range, including the supposed place of the discontinuity of the continent, being that to which my attention had been particularly called, and where the imaginary current, which was to be my guide, was to be expected. It is, perhaps, unnecessary to add, that under these circumstances, I was anxious to proceed to the spot where it must be evident I had the best chance of success. Yet my anxiety, on the other hand, to leave no part of the coast unexplored, even after all hopes of a passage were given up, determined me to persevere as I did, notwithstanding there was no current, a material decrease in the temperature of the sea, and no driftwood, or other indication of a passage, until I actually saw the barrier of high mountains, and the continuity of ice, which put the question at rest. That I did so persevere became afterwards a source of great satisfaction, as I was fortunate enough to succeed also in exploring every part of the coast to the southward to which my attention was to be directed, and where I was

Sept. 1. Lat. $73^{\circ} 57'$. Long. $77^{\circ} 25'$. Var. 110° W.

led to expect that the current was to be found. This was a much more essential part of my duty than the making of magnetical observations, which was the only inducement still remaining to linger in that dangerous bay, where much time might have been wasted in attempting to land, perhaps, without success, or, at any rate, without obtaining any adequate results. My opinions were mentioned to several of the officers, after I had determined to proceed to the southward. Lieutenant Parry's ship, the *Alexander*, being nearly hull down astern at the time I drew the land, and the ice at the bottom of the bay, it was scarcely possible it could be seen from that ship; for, at that moment, she was very indistinctly seen from the *Isabella*. I, therefore, did not think it worth while detaining the ships for Lieutenant Parry's Report; but it afterwards appeared that the officer of the watch in the *Alexander* had seen the land at the bottom of the bay. It was also reported to me that the *Alexander's* deviation had changed in such a manner

Sept. 1. Lat. $75^{\circ} 37'$. Long. $77^{\circ} 25'$. Var. 110° W.

as to make her bearings of the land of no value for the remainder of the voyage, as will appear by the subjoined official letter. *

* *His Majesty's Ship Alexander, at Sea,*
September 1st, 1818.

SIR,

I HAVE the honour to state to you, that the officers who have charge of the respective watches, on board the *Alexander*, having on the 27th and 28th ult., reported to me that they had remarked a very perceptible inaccuracy in the compasses, by the ship's lying repeatedly within eight and a half, eight, and even seven points, on both tacks, I took particular notice, on several occasions, of the direction of her head, by the compasses, before and after tacking, and found their report to have been accurate. I select the following instances :

Aug. 27.—8 30 A. M...	On larboard tack, W. by S.	} 10 points.
	starboard S. S. E.	
5 30 P. M...	On larboard tack, W. N. W.	} 7 points.
	starboard S. W. by S.	
about 9 P. M...	On starboard tack, S. W.	} 8 points.
	larboard N. W.	
Aug. 28.—3 A. M...	On starboard tack, S. S. W.	} 8 points.
	larboard W. N. W.	
6 30 P. M...	On larboard tack, N. W. by W. $\frac{1}{2}$ W.	} $8\frac{1}{2}$ points.
	starboard S. S. W.	

By referring to the diagram of the experiments made on board the *Alexander*, under your direction, on the 27th July, it appears that the deviation then found, on any of the above courses, is totally inadequate to account for such a difference, the amount being now almost as many *points* in some instances as it then was *degrees*.

Sept. 2. Lat. 73° 32'. Long. 76°.

Having determined to quit this inlet and proceed to the southward, it was my intention to have anchored in some of the bays which appeared to open out to the south of Cape Byam Martin, in order to determine the dip of the magnetic needle, which I regretted had not been observed at Possession Bay. Unfortunately the wind freshened, and a thick fog coming on, we were obliged to stand out to gain the middle of the inlet which we had just explored.

Early in the morning of the 2d of September we stood in shore, expecting it would clear; but it continued thick, and came on to blow so fresh as to oblige us to take two reefs in the topsails. The swell

This deviation has become less perceptible since the 28th and 29th, though it is still frequently found to be much greater than on the coast of Greenland.

I have the honour to be,

Sir,

Your most obedient humble Servant,

W. PARRY, Lieut. and Commander.

To Captain John Ross, &c. &c. &c.

H. M. Ship Isabella, at Sea.

Sept. 2. Lat. $75^{\circ} 32'$. Long. 76° .

from the S. E. also increased considerably, and we found the ships, with every sail that could be carried, scarce held their own against the wind. They both sailed so badly that when there was the least pitching motion, they did not go above two knots an hour, nor could they be depended on for staying even under all sail. A lee-shore was therefore to be avoided as much as possible, and it was thus totally out of my power to obtain a perfect geographical survey of the coast; which was, however, of less importance, from its not being the main object of the expedition. Nothing of consequence happened during these twenty-four hours, nor was there any observation made worthy of remark, except that we found the deviation to be without any alteration since our former trials. Two whales, with very high back fins, were seen about this time, and Mr. Lewis the master said that this species was seldom seen in Davis' Strait; seals were seen in abundance, and some ducks, but none were taken.

Sept. 3. Lat. $73^{\circ} 45'$. Long. $74^{\circ} 10'$. Var. $105^{\circ} 51' W.$

September 3. — The weather continued thick, but at five o'clock in the morning there was a clear for a short time in the N. N. E. direction, and the officer of the watch reported, that he saw the land*, but before I got upon deck it was obscured. We had here a good opportunity of observing the effect of humidity on the deviation, and it was found to correspond with the former observations. After standing for some time to the E. N. E., we wore and stood to the southward; but the wind still increasing, the top-gallant yards and royal masts were struck; the swell which came from the S. E. was the highest we had yet seen, and as the ships were now unable to hold their own, it was fortunate we had a good offing. In the afternoon the wind began to abate, and at four it cleared: the weather became gradually moderate, and at seven it fell calm. We had good azi-

* This land must have been by its bearings Cape Clarence, and was distant one hundred and twenty miles.

Sept. 4. Lat. $73^{\circ} 45'$. Long. $74^{\circ} 10'$. Var. $106^{\circ} 51'$. W.

muths at the prime vertical, and found that the variation had decreased a little: there was too much swell to obtain soundings in deeper water than one hundred and fifty fathoms, and we found no bottom with that length of line. At sun-set, 8 P. M., the land was seen from W. by S. to S. S. W.; and we found ourselves still off Lancaster Bay; both the barometer and sympiesometer fell very low, which was the first time they had deceived us, but the barometer fell most in proportion. As soon as the ships would steer, they were kept for the southernmost land in sight: numbers of birds of the guillemot kind were seen flying to the southward.

September 4. — The weather continuing moderate and the wind still to the eastward, we made for the most southern point we had seen on the preceding day, and in the morning we passed the two inlets to the southward of Cape Byam Martin which had the appearance of harbours; but, on a nearer approach, we discovered them to be filled with large glaciers of ice, and quite

Sept. 4. Lat. $75^{\circ} 45'$. Long. $74^{\circ} 10'$. Var. $106^{\circ} 51'$ W.

impenetrable. A cape, which appeared to the southward of these inlets, was named Cape Bathurst, and the bay between it and Cape Byam Martin, was named Bathurst Bay. At ten the sun appeared, and, in a short time, it became quite clear, so that we distinctly saw the land extending to the southward as far as S. S. E., the coast running north and south for about fifteen leagues, and then trending to the south-eastward. It appeared to be an uninterrupted continuation of the chain of mountains which has been before described as surrounding the coast from Cape Clarence; the farthest extremity, which was very distinct, was about thirty leagues distant, bearing about S. S. E. Being disappointed in finding a harbour, into which we might enter and determine the magnetic force and dip, and being anxious to obtain it, I sent a party to a very large iceberg which was near us, but they did not succeed in getting on it. A thick fog coming on, guns and rockets were fired to draw them our position; but, at six, they re-

Sept. 4. Lat. $73^{\circ} 45'$. Long. $74^{\circ} 10'$. Var. $106^{\circ} 51'$ W.

turned, and reported that this iceberg had motion, and, consequently, the observations could not be made; and as the wind returned to the south-east, I was obliged to stand off shore. By several bearings off Cape Byam Martin and Cape Bathurst, the deviation was again determined to be without alteration in the *Isabella*, and good observations were obtained for the latitude, longitude, and variation. During this evening we kept company with the *Alexander* by musquetry. At ten P. M., a light breeze sprung up for the N. E., and I steered S. E. under all sail, taking the usual precautions, and heaving to for the purpose of sounding, when sufficiently a-head of the *Alexander*; but the swell was so great that we could not sound in deeper water than five hundred and fifty fathoms, where no bottom was found. A new main-sail was bent, and other preparations were made against the gales which might be expected this month. When the wind came fair this evening, we had the utmost difficulty in shaping our course, as it was a thick fog:

Sept. 4. Lat. $73^{\circ} 45'$. Long. $74^{\circ} 10'$. Var. $106^{\circ} 51' W$.

and, the ship having considerable motion, the compasses all ceased to act. As there was no object in sight by which the helmsman could be directed, we had recourse to firing guns to the Alexander. By the sound of her guns, in answer, it was found that the wind was to the N.E., and it was brought on the larboard-beam accordingly. Alexander of Leith, and Crow of Gravesend's compasses, were found to be the first that began to act, when the motion and the humidity became less. At midnight the weather cleared up, and we saw the Alexander, when we were enabled to continue our course, which we did under all sail.

END OF THE FIRST VOLUME.



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